

**Study  
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## **DETERMINING COMPOSITE VALIDITY COEFFICIENTS FOR ARMY JOBS AND JOB FAMILIES**

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**United States Army Research Institute  
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# DETERMINING COMPOSITE VALIDITY COEFFICIENTS FOR ARMY JOBS AND JOB FAMILIES

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## INTRODUCTION

In an earlier study, Zeidner, Johnson, Vladimirovsky and Weldon (August 2000) developed a new two-tiered classification system that will be tested as part of the ongoing Enlisted Personnel Allocation System (EPAS) field evaluation test. The visible tier of that system is a nine job family composite structure using least squares estimates (LSEs) of the 7-test ASVAB. These so called "interim" Aptitude Area (AA) composites were adopted by the Army in January 2002, while research continues on the benefits and costs of moving to the proposed two-tiered classification system.

The proposed system uses an invisible or black-box first tier in which separate assignment variables (AVs) are computed for 150 job families. The first tier AVs are to be used in assigning recruits to entry-level MOS. The second tier consists of 17 job families to be used in recruiting, counseling and administration. These new 17 aptitude area (AA) scores, each corresponding to a job family, would be recorded on the personnel records of each soldier.

The principal research finding of the proposed two-tiered system was that the unbiased overall mean predicted performance (MPP) of the 150 job family structure was .195, compared to the MPP of the long-standing AA operational system of .023, a gain of more than eight fold. The unbiased overall MPP for the second tier 17 job families was .145. The 17 family structure was obtained by shredding the existing AA families within the boundaries of the operational classification families to maximize the Horst index of classification efficiency. LSE 9-family composites were found to have an overall mean MPP of .123, more than five times greater than the existing AA composites. The research utilized data obtained from the Army's Skill Qualification Test (SQT) program over the 1987 - 1989 period.

Since the publication of the Zeidner, et al. August, 2000 study, DOD decided to reduce the 9 ASVAB tests to 7 tests by removing the Numerical Operations (NO) and Clerical Speed (CS) tests from the battery. The tests were dropped from the battery in part because of the difficulty of maintaining computer-administered speeded tests and in part because of the small contribution that NO and CS made to predictive validity in the selection process.

A study was undertaken (Zeidner, Johnson, Vladimirsky, & Weldon, December 2000), using a data set composed of 66 MOS from a previous study, designed to determine the effect on classification of reducing the ASVAB from 9 to 7 tests by dropping NO and CS. It was found that the unbiased overall MPP for classification was significantly lowered by .012, or 6.2 percent, for the reduced 7-test battery.

In computing MPPs, LSE test composite scores are employed in the process but not recorded. However, an Expert Panel convened to review the classification research effort sponsored by ARI, meeting on 7 September 2001, suggested that composite validity coefficients for the 66 MOS be obtained. The coefficients were then computed and corrected for unreliability of the criterion and for restriction effects of assigning from the Army input population (AIP) to MOS samples. The mean corrected unbiased validity coefficient, weighted by sample size of each MOS, was found to be .464 (Zeidner & Johnson, September, 2001).

ARI later requested that the authors conduct a more comprehensive examination of validities embracing the proposed first tier (150 job families), the second tier (17 job families), and the interim LSE battery (composed of the 7-test ASVAB for 9 operational job families). Composite validities are often used as a conventional index of merit in selection programs and they are also used in the process of establishing cut scores for jobs, generally employing youth population validities. Validity coefficients, being one component of the computational process,

are not as meaningful an index of merit as differential validities or, even more significantly, MPP in classification.

## OBJECTIVES

The broad goal of the present research (and the first study completed in response to the Expert Panel recommendations) is to compute composite validity coefficients for the 7-test ASVAB for the second tier of the proposed new two-tiered system and for the composite coefficients for the interim 9-families job structure. The specific research objectives are given below.

1. To compute the 7-test ASVAB LSE composite validity coefficients for the first-tier 150 job family structure. These correlation coefficients are corrected, first, for unreliability of the criterion and, then, for restriction in range effects due to assignment from an Army input population to MOS samples. The coefficients are computed for both back (biased) and cross (unbiased) validities of LSE composites.
2. To compute ASVAB composite validity coefficients for the youth population in the 150 job family structure. This involves a correction for the Army input and then separate restriction in range correction due to selection from the youth population into the Army. Again, the coefficients are computed for both back and cross validities.
3. To compare mean validity coefficient results obtained for the 150 job families with those obtained earlier for the 66 MOS families. Although there was a substantial overlap in MOS between the two data sets, the 66 MOS study was computed on data that was collected, as noted, several years earlier than was the 150 family study.

4. To compute the weighted aggregation of test composites validity coefficients for the aggregated MOS corresponding to each of the 17 job family composites of the second tier and for each of the 9 interim composites. Validities are first corrected for the Army input population and then corrected for the youth population for both back and cross samples.

## METHOD

In this research the seven ASVAB tests are “best” weighted and summed into composite test scores to provide separate composite scores for 150 MOS families, 9 interim operational families, and 17 second tier families. The 150 families are proposed for use in EPAS for making assignments to MOS and the 9 and 17 families are being considered for operational implementation for counseling and as a means of computing cut scores. Two independent samples of ASVAB test scores and criterion scores are utilized in a double cross validation design to produce both biased and unbiased validity coefficients under three restriction in range conditions, generating six experimental conditions.

### **Research Design**

As noted, composite scores are computed separately under six experimental conditions for 150 MOS families, 9 interim operational families, and the 17 second tier families. Correlation coefficients between these composite scores and the corresponding MOS specific criterion scores are computed under the six conditions: each of these coefficients are either biased or unbiased, and either uncorrected for restriction in range or corrected to either the Army Input population (AIP) or the Youth population (YP). These two facets, with 2 and 3 levels, respectively, constitute the six experimental conditions of the present research.

When the test weights and correlation coefficients are computed on the same sample, the inflated results are considered to be biased. Conversely, when the weights and the composite validity coefficients are computed on independent samples, the coefficients are referred to as unbiased.

Both the predictors and criterion scores are affected by restriction in range effects, resulting in a reduction in magnitude of range, variance, covariance, and correlation coefficients. This restriction in range is the result of either selection or assignment to jobs, or a combination of both effects, depending on which population (MOS, Army or Youth) is being considered.

Best weighted test composites are constrained to have positive weights and have been converted from least square estimates to have equal means and standard deviations across all composites in the set. The standard deviation used in these conversions differs, depending on the population to which corrections for restriction in range are made. For the Youth population a standard deviation of 20 is used, and smaller values are used for the Army input population and the uncorrected MOS samples.

Proposed operational composites can be defined in terms of  $u$  and  $k$  values. The  $u$  is a raw score regression weight that can be appropriately applied to operational test scores, as contrasted with standard score regression weights, i.e., beta weights or  $\beta$  weights that should only be applied to statistical standard scores. The  $k$  is a regression weight that must be added when raw score regression weights are used. The same validity coefficients would be obtained and the same "optimal" assignments made if the composites were to be defined in terms of beta weights applied to statistical standard scores.

## Approach

The research approach includes comparisons of validity coefficients computed under the six experimental conditions. These comparisons can be clearly made in terms of composite scores (e.g., as obtained by applying  $u$  and  $k$  values to operational test scores). Validity coefficients can then be computed for these composite scores. The same results can be obtained by the use of  $\beta$  weights in conjunction with a correlation of sums model. The matrices used in this correlation of sums model can readily reflect the six experimental conditions of this study.

Applying  $u$  and  $k$  parameters for each of the nine criterion composites to the operational test scores creates composite scores with expected means of 100 and standard deviations (SDs) of 20 in the Youth population (YP). Expected means approximately five points higher and SDs approximately two points less are obtained when correcting to the Army Input population (AIP). Considerably higher means and lower SDs are found in the uncorrected MOS samples, the samples where the validity coefficients are computed.

The expression of our six experimental conditions is less awkward using the correlation of sums model, as compared to the computation of all composite scores and the direct computation of the validity coefficients for each composite score. Fortunately, in using the correlation of sums approach, we can achieve the same accuracy that would be provided by the application of  $u$  and  $k$  values to test scores. This also simplifies the generation of validity coefficients under all six experimental conditions and clarifies the computation process for each of the six conditions.

## Correlation of Sums Model

The Correlation of Sums model used to compute the validity coefficients for each of the six conditions is described by Holzinger and Harmon (1941, pp. 34-39) and earlier by Spearman (1913). This model provides for computing the validity coefficients of the composites using the test validity and test intercorrelation coefficients corrected to: the YP (the same ones for each condition); the criterion SDs for each aggregate sample (also the same for each condition); the test composite SDs (different for each condition); and the test weights used to form each of the nine composites (separately for each condition).

The algebraic equivalent of computing the actual composite scores (as when  $u$  and  $k$  values are applied to test scores) and then computing the correlation coefficients with the criterion scores in an independent sample can be obtained by using the correlation of sums model. Unbiased validity coefficients can be obtained by using  $W$  matrices from one of the two samples (A or B) and the other matrices from the other sample.

## Correlation of Sums Formula

The correlation of sums formula is as follows:

The squared composite validity coefficient =  $(V_k)(W_i) / (\text{kth composite SD})(\text{criterion SD})$ . The SD of the test composite equals the square root of  $(W_{ik})'(R_u)(W_{ik})$  where the three matrices are, respectively, 1 by 7, 7 by 7, and 7 by 1.

The same  $V_{iks}$  (that  $V_{iks}$  which is post multiplied by a weight matrix to produce the numerator) is utilized for all composites within a condition. (The index  $k$  represents the composite,  $i$  represents the correction condition, and  $s$  represents sample A or B.) In contrast, the

$W_{iks}$  matrix and the SD of each composite (based on the weights specific to each condition and either sample A or B) are different for each composite.

The SD of each composite, specific to each condition and sample A or B, are equal to the square root of:  $(W_{iks})' (R_u) (W_{iks})$ . Note that  $R_u$  is the same matrix for all composites within each of the three levels of the “correction” facet conditions, but different matrices across these three facets.

The Youth population  $R_u$  is the tabled inter-correlation matrix for the inter-r coefficients among the 7 tests for this population. This matrix is used as one ingredient in correcting to the Youth population to produce the W matrices, as well as the V matrices and the composite SDs for both the 9 test composites and the criterion scores. The AIP  $R_u$  will be similarly used for correcting to the Army Input population.

The Army Input Population values (AIP) are estimated as those computed on Sample A+B. The AIP  $R_u$  is computed using the operational test scores, removing the effect of different MOS means by converting all 150 MOS samples into deviation scores (i.e., operational test scores minus the MOS sample means) and computing across the MOS samples.

### **Research Design for Providing Unbiased Results**

Using the notation a or b, as an index, indicates specifically sample A or B, j represents the MOS sample, and k represents the MOS or job family composite, the research design can be reflected in the correlation of sums model as follows:

CVC = squared composite validity coefficient. An example in which B is the back sample and A is the cross sample is used in the following formula:



$CVC = (V_{ka})(W_{ib}) / (kth \text{ composite } SD)a (kth \text{ criterion } SD)a$  ; where,  $(kth \text{ composite } SD)a = \text{square root of } (W_{iks})' (R_{uii}) (W_i)$  ; corrected to designated population, and  $(kth \text{ criterion } SD)a = \text{square root of } [1.0 + (G_{ka})' (C_{xxu} G_{ka} - I) C_{xyka}]$  ; and also corrected to designated population by the choice of population to be represented by the universe test covariance matrix.

Note that the following notation applies:

$G_{ka} = (C_{xxka})^{-1} (C_{xyka})'$  ; where,

$C_{xxka} = 7 \text{ by } 7 \text{ covariance matrix among tests (designated as x) in kth uncorrected "cross" sample corresponding to kth composite. } C_{xyka} = 7 \text{ by } 1 \text{ covariance vector among tests and criterion variables corresponding to kth composite obtained in uncorrected cross sample.}$

$C_{xxu} = 7 \text{ by } 7 \text{ covariance matrix among tests in a designated population ; these intercorrelation coefficients may be tabled (as for the Youth population) or may be represented by a sample (as for the Army Input population).}$

There is more than one alternative correlation of sums based concepts that can produce unbiased estimates of composite validity coefficients (CCVs) for the unrestricted population of predictor and criterion scores. We used test score samples that are drawn from the unrestricted population of test scores to estimate one of the following kinds of matrices: (1) covariance matrices computed on samples A, B, A+B, or A+B+C (all samples drawn from the AIP); (2) Separate covariance matrices between predictors (x) and criterion variables (y) computed separately for Sample A and B MOS samples ( $C_{xyaj}$  and  $C_{xybj}$ ) corrected to provide an estimate of each covariance matrix in a prescribed unrestricted population (AIP or YP). The kth criterion SD required to convert the unrestricted  $C_{xy}$  to a unrestricted V matrix are obtained in the MOS samples and corrected to remove the effects of restriction (i.e., to provide a unrestricted criterion

SD). The 7 by 7 unrestricted  $C_{xxu}$  is post multiplied by the  $G_{ks}$  matrix to provide the unrestricted transpose of the 7 by 1  $C_{xyu}$  matrix. The corrected predictor-criterion vector representing each MOS in the correlation of sums formula is obtained as  $V_{ka} = (S_x)^{-1} (C_{xyka}) (S_y)^{-1}$ , where  $S_x$  is a 1 by 7 vector of test SDs and  $S_y$  is a scaler number equal to the criterion SD. Also note that there is a separate G matrix (see Appendix E) for each half (sample A or B half) of each MOS sample.

Note that the estimate of  $C_{xyu}$  is specific to each MOS sample of A or B, although the estimate of  $C_{xxu}$  is the same across both A and B samples for the YP and we can choose to make our estimate of  $C_{xxu}$  for the AIP be based on Sample A+B or separately by Samples A and B. There is just a little more sampling error in our estimate when we choose A and B rather than A+B, but this sampling error is not bias.

### **Computing Validity Coefficients**

First, the validity coefficients for the 7 ASVAB tests are computed for the 150 MOS samples. These coefficients are computed uncorrected for restriction in range. They are separately computed, with a correction for restriction in range to the Army input or the Youth population. They are then utilized in a correlation of sums formula for computing back and cross validity coefficients for composites. Also, the weighted aggregation of these test validity coefficients for the aggregated MOS corresponding to each of the 9 interim test composites will be computed and recorded separately for the cross validity coefficients corrected to the Army input and the Youth populations. These latter validity coefficients will then be separately corrected for restriction in range of both composite and criterion scores to the Army input and the Youth population. The criterion scores are in statistical standard score form within each MOS.

## RESULTS AND DISCUSSION

### **The 150 Job Family First-Tier Structure**

Table 1 shows the 150 job families used in this study that were identified by the use of Horst's empirical clustering algorithm to identify stable single MOS and multi-MOS job families. Small-sized MOS were joined with other related small MOS to form eight separate combined MOS. The combined MOS are designated as "Z"s in Table 1 along with their constituent MOS. The overall family structure is composed of 146 single MOS plus 4 multi-MOS families. For example, 24Z, is considered a single MOS family after smaller MOS were combined. Table 1 also shows the sample size for each MOS, combining samples A and B, for a total N of 237,680. For analysis purposes, the two samples were divided using a random number generator program.

**Table 1**  
***The 150 Job Family First-Tier System***

Family	N	MOS	Title
1	4606	11B	Infantryman
2	4606	11C	Indirect Fire Infantryman
3	4606	11H	Heavy Anti-Armor Weapons Infantryman
4	4232	11M	Fighting Vehicle Infantryman
5	4606	12B	Combat Engineer
6	1796	12C	Bridge Crewmember
7	554	12F	Engineering Tracked Vehicle Crewman
8	4606	13B	Cannon Crewmember
9	662	13C	Tacfire Operations Specialist
10	1768	13E	Cannon Fire Direction Specialist
11	3778	13F	Fire Support Specialist
12	714	13M	Multiple Launch Rocket Sys (MLRS) Crewmember
13	2510	13N	Lance Crewmember
14	544	13R	Fa Firefinder Radar Operator
15	628	14D	Hawk Missile Crewmember
16	646	16E	Hawk Fire Control Crewmember
17	1016	16P	Chaparral Crewmember
18	1838	16R	Vulcan Crewmember
19	2216	16S	Man Portable Air Defense System Crewmember
20	4606	19D	Cavalry Scout
21	4388	19E	M48-M60 Armor Crewman
22	4606	19K	M1 Abrams Armor Crewman
23	692	<b>24Z</b>	<b>Combined</b>
		24C	Hawk Firing Section Mechanic
		24G	Hawk Information Coordination Center Mechanic
		24N	Chaparral System Mechanic
		21L	Pershing Electronics Repairer
24	358	25S	Still Documentation Specialist
25	826	27E	TOW/Dragon Repairer
26	784	29V	Strategic Microwave Systems Repairer
27	4606	31C	Single Channel Radio Operator
28	4606	31K	Combat Signaler
29	2558	31L	Wire Systems Installer
30	652	31N	Communications Systems/Circuit Controller
31	518	31P	Microwave Systems Operator-Maintainer
32	1284	31Q	Tactical Satellite/Microwave System Operator

Family	N	MOS	Title
33	4606	31R	Multichannel Transmission Systems Operator
34	458	31S	Satellite Communications System Operator
35	3940	31V	Unit Level Communications Maintainer
36	940	35E	Radio and Communications Security Repairer
37	306	35H	TMDE Maintenance Support Specialist
38	952	35J	Telecommunications Terminal Device Repairs
39	678	35N	Wire Systems Equipment Repairer
40	1106	36M	Switching Systems Operator
41	322	41C	Fire Control Instrument Repairer
42	962	44B	Metal Worker
43	544	44E	Machinist
44	562	45B	Small Arms Repairer
45	520	45D	Self-Propelled FA Turret Mechanic
46	502	45E	M1 Abrams Tank Turret Mechanic
47	752	45K	Tank Turret Repairer
48	412	45L	Artillery Repairer
49	518	45N	M60A1/A3 Tank Turret Mechanic
50	468	45T	Bradley Fighting Vehicle Sys Turret Mech
51	458	<b>46Z</b>	<b>Combined</b>
		46Q	Journalist
		46R	Broadcast Journalist
52	1876	51B	Carpentry and Masonry Specialist
53	490	51K	Plumber
54	326	51M	Firefighter
55	666	51R	Interior Electrician
56	316	51T	Technical Engineering Specialist
57	486	52C	Utility Equipment Repairer
58	4606	52D	Power Generator Equipment Repairer
59	1270	54B	Chemical Operations Specialist
60	2262	55B	Ammunitions Specialist
61	382	55D	Explosive Ordinance Disposal (EOD) Spec
62	728	57E	Laundry and Bath Specialist
63	2814	62B	Construction Equipment Repairer
64	1402	62E	Heavy Construction Equipment Operator
65	484	62F	Crane Operator
66	816	62J	General Construction Equipment Operator
67	4606	63B	Light-Wheel Vehicle Mechanic

Family	N	MOS	Title
68	1136	63D	Self-Propelled Field Artillery Sys Mech
69	1266	63E	M1 Abrams Tank System Mechanic
70	722	63G	Fuel and Electrical System Repairer
71	2206	63H	Track Vehicle Repairer
72	1198	63J	Quartermaster and Chemical Equip Repairer
73	690	63N	M60A1/A3 Tank System Mechanic
74	2308	63S	Heavy-Wheel Vehicle Mechanic
75	3112	63T	Bradley Fighting Vehicle Sys Mechanic
76	2820	63W	Wheel Vehicle Repairer
77	908	63Y	Track Vehicle Mechanic
78	1252	67N	Utility Helicopter Repairer
79	216	67R	AH-64 Attack Helicopter Repairer
80	1440	67T	Tactical Transport Helicopter Repairer
81	1502	67U	Medium Helicopter Repairer
82	1612	67V	Observation/Scout Helicopter Repairer
83	1076	67Y	AH-1 Attack Helicopter Repairer
84	588	68B	Aircraft Powerplant Repairer
85	680	68D	Aircraft Powertrain Repairer
86	656	68F	Aircraft Electrician
87	832	68G	Aircraft Structural Repairer
88	1038	68J	Aircraft Armament/Missile Systems Repairer
89	388	68M	Aircraft Weapon Systems Repairer
90	436	68N	Avionic Mechanic
91	690	<b>68Z</b>	<b>Combined</b>
		68L	Avionic Communications Equipment Repairer
		68Q	Avionic Nav & Flight Control Equipment Repairer
		68R	Avionic Special Equipment Repairer
92	1318	71D	Legal Specialist
93	1054	71G	Patient Administration Specialist
94	4606	71L	Administrative Specialist
95	894	71M	Chaplain Assistant
96	1520	72E	Tactical Telecommunications Center Op
97	1600	72G	Automatic Data Telecommunications Center Op
98	2068	73C	Finance Specialist
99	460	73D	Accounting Specialist
100	1090	74B	Information Systems Operator
101	3788	75B	Personnel Administration Specialist

Family	N	MOS	Title
102	2308	75C	Personnel Management Specialist
103	2500	75D	Personnel Records Specialist
104	1270	75E	Personnel Actions Specialist
105	574	75F	Personnel Information Sys Mgt Specialist
106	918	76J	Medical Supply Specialist
107	2668	76P	Material Control and Accounting Specialist
108	4606	76V	Material Storage and Handling Specialist
109	498	76X	Subsistence Supply Specialist
110	4606	77F	Petroleum Supply Specialist
111	740	77W	Water Treatment Specialist
112	330	81L	Printing and Bindery Specialist
113	744	82C	Field Artillery Surveyor
114	1404	88H	Cargo Specialist
115	4606	88M	Motor Transport Operator
116	1800	88N	Traffic Management Coordinator
117	4606	91A	Medical Specialist
118	688	91D	Operating Room Specialist
119	1114	91E	Dental Specialist
120	436	91F	Psychiatric Specialist
121	308	91G	Behavioral Science Specialist
122	1360	91K	Medical Laboratory Specialist
123	472	91M	Hospital Food Service Specialist
124	640	91P	X-Ray Specialist
125	628	91Q	Pharmacy Specialist
126	514	91R	Veterinary Food Inspection Specialist
127	472	91S	Preventive Medicine Specialist
128	316	91T	Animal Care Specialist
129	590	<b>91Z</b>	<b>Combined</b>
		91H	Orthopedic Specialist
		91J	Physical Therapy Specialist
		91U	Ear, Nose and Throat Specialist
		91Y	Eye Specialist
130	4606	92A	Automated Logistical Specialist
131	4606	92G	Food Service Specialist
132	298	92M	Mortuary Affairs Specialist
133	928	92R	Parachute Rigger
134	4606	92Y	Unit Supply Specialist

Family	N	MOS	Title
135	576	93C	Air Traffic Control (ATC) Operator
136	1222	93P	Flight Operations Coordinator
137	4606	95B	Military Police
138	322	95C	Corrections Specialist
139	752	96B	Intelligence Analyst
140	360	96D	Imagery Analyst
141	728	96R	Ground Surveillance Systems Operator
142	394	97B	Counterintelligence Agent
143	516	98C	Signals Intelligence Analyst
144	1144	98G	EW Signal Intelligence Voice Interrogator
145	890	98H	Morse Interceptor
146	426	<b>98Z</b>	<b>Combined</b> (98D, 98J, 98K)
		98D	Emitter Locator/Identifier
		98J	Noncommunications Interceptor/Analyst
		98K	Non-Morse Interceptor/Analyst
147			
	198	55G	Nuclear Weapons Specialist
	302	93F	Field Artillery Meteorological Crewmember
148			
	504	<b>27Z</b>	<b>Combined</b>
		24K	Hawk Continuous Wave Radar Repairer
		24M	Vulcan System Mechanic
		27H	Hawk Firing Section Repairer
		27M	Multiple Launch Rocket System Repairer
		27N	Forward Area Alerting Radar (FAAR) Repairer
	398	<b>29Z</b>	<b>Combined</b>
		29F	Fixed Communications Security Equipment Repairer
		29M	Tactical Satellite Microwave Repairer
149			
	414	25M	Graphics Documentation Specialist
	342	<b>25Z</b>	<b>Combined</b>
		25C	Cartographer
		25P	Visual Information/Audio Documentation Specialist
	342	97E	Interrogator
150			
	206	15E	Pershing Missile Crewmember
	156	16J	Defense Acquisition Radar Operator
Total	237,680		



## The Uncorrected Army Input Composite Validities

Table 2 shows the uncorrected 7-test composite validities for the 150 job families. Using a double cross-validation design, the back samples are computed as  $\text{Samples (AA + BB) / 2}$ , and the cross samples as  $\text{Samples (AB + BA) / 2}$ . Back (biased) and cross (unbiased) validities are computed separately for each family. In every case, across the 150 job families, the back validities are higher, as expected, than are the cross validities (weighted average of .450 vs. .433). The difference in validity between the weighted averages of the back and cross samples is .017 points. The weighted average takes into account varying sample sizes and is most relevant to the classification process. The mean validity (in contrast to the weighted average) of the uncorrected composites in the back samples is .432, compared to .391 in the cross samples, a loss, as expected, of about .04 correlational points.

It is worth noting that the two sets of validities, i.e., back and cross, for about six combat arms families, each with very large  $N$ s, differ only in the third place. For example, 11B (Infantryman) differs by .003. As a check on the accuracy of these differences, we examined the profile of test weights within a family. If the profile was relatively flat (small spread in magnitude across the seven test weights) there was also a greater likelihood of small differences in coefficients between back and cross samples.

In evaluating the beta weights ( $\beta$ ) of composites, which take into account both test validities and intercorrelations among tests, we find, for 11B in Appendix A,  $\beta$  weights listed here in descending order of .15, .11, .05, .05, .05, .03, .03. These  $\beta$  weights present a somewhat flat profile of weights that are used in the regression equation along with validity coefficients to obtain the composite validity. Note that five of the seven values have nearly the same low values. In contrast, we find 91A has a much larger difference of .147 between its back and cross

validities. Both 11B and 91A have the same sample size of 4,606. We find test  $\beta$  weights for 91A, Appendix A, in descending order of .159, .154, .120, .109, .054, .027, -.262. This presents much more of a peaked profile than 11B, with  $\beta$  weights ranging from .159 to -.262. If we contrast the five or six families with the smallest differences in validities between back and cross samples with the five or six with the largest differences, we find similar flat vs. peaked profiles. Appendix B shows  $\beta$  weights for Sample B. Also for general reference purposes, Appendices C and D show test validities for each of the 150 Army job families and for the youth population for the two samples.

**Table 2**  
*Uncorrected Composite Validity Coefficients  
for 150 Army Job Families*

MOS	Validity Coefficients		MOS	Validity Coefficients	
	Back (A/A + B/B /2)	Cross (A/B + B/A /2)		Back (A/A + B/B /2)	Cross (A/B + B/A /2)
11B	.34835	.34504	27Z	.53790	.53486
11C	.44855	.44054	29V	.53902	.53311
11H	.50193	.49948	31C	.32506	.19830
11M	.36244	.35679	31K	.32717	.19279
12B	.47048	.46582	31L	.46654	.43883
12C	.48732	.47911	31N	.45203	.44566
12F	.44927	.43346	31P	.17630	.15233
13B	.54129	.52783	31Q	.42524	.42246
13C	.54329	.51146	31R	.38382	.31817
13E	.57787	.57219	31S	.21852	.12490
13F	.49811	.49096	31V	.27031	.24046
13M	.42599	.37809	35E	.43622	.40465
13N	.44498	.44038	35H	.38830	.35770
13R	.37219	.34320	35J	.50396	.39486
14D	.51053	.50132	35N	.56876	.55953
15E	.52936	.47046	36M	.55709	.50909
16E	.42978	.38135	41C	.70696	.68019
16P	.51067	.49462	44B	.35798	.29371
16R	.60871	.57085	44E	.42054	.36655
16S	.54290	.53624	45B	.47702	.45807
19D	.50323	.49806	45D	.40349	.35871
19E	.55221	.54736	45E	.55632	.53253
19K	.26043	.14695	45K	.48929	.42391
24Z	.60339	.55378	45L	.33944	.19675
25M	.38255	.33274	45N	.43587	.42271
25S	.41982	.40275	45T	.50424	.48035
27E	.41668	.41234	46Z	.38709	.31939

MOS	Validity Coefficients	
	Back	Cross
	(A/A + B/B /2)	(A/B + B/A /2)
51B	.48074	.43025
51K	.45806	.40643
51M	.40140	.36509
51R	.53231	.52948
51T	.72753	.71530
52C	.51524	.50242
52D	.36696	.24990
54B	.18797	.15806
55B	.66534	.66254
55D	.50064	.49013
55G	.57259	.53705
57E	.47601	.43605
62B	.68771	.67979
62E	.37350	.35506
62F	.53117	.50770
62J	.34099	.28944
63B	.52402	.50771
63D	.48531	.47777
63E	.46731	.43635
63G	.37417	.34619
63H	.31141	.30519
63J	.72046	.71225
63N	.48538	.46744
63S	.43462	.41323
63T	.46415	.37102
63W	.45656	.42427
63Y	.47098	.46120
67N	.31446	.29416
67R	.34890	.32742
67T	.31737	.17378
67U	.38856	.31190
67V	.41723	.35098
67Y	.54448	.51687
68B	.35411	.24338
68D	.38526	.28871
68F	.53560	.48952
68G	.52080	.49001
68J	.26590	.23460
68M	.33502	.27566
68N	.31211	.30978
68Z	.43704	.40978
71D	.46625	.44532
71G	.44517	.42530
71L	.31531	.30651
71M	.38429	.35133
72E	.39158	.37637
72G	.36760	.34814
73C	.30910	.29165
73D	.24792	.24223
74B	.32502	.29522
75B	.29305	.20909
75C	.28505	.24278
75D	.47475	.45217

MOS	Validity Coefficients	
	Back	Cross
	(A/A + B/B /2)	(A/B + B/A /2)
75E	.50253	.49377
75F	.56406	.51231
76J	.54316	.53866
76P	.42634	.39244
76V	.46755	.28687
76X	.62231	.58350
77F	.34558	.31327
77W	.51785	.50874
81L	.23263	.21580
82C	.37129	.36547
88H	.44231	.36486
88M	.30500	.27368
88N	.21758	.13623
91A	.36338	.21647
91D	.24854	.18938
91E	.44387	.37212
91F	.36211	.27860
91G	.44193	.40987
91K	.45354	.39270
91M	.53399	.48879
91P	.38785	.32512
91Q	.32941	.29261
91R	.38242	.37660
91S	.57619	.57459
91T	.49445	.29882
91Z	.30863	.27787
92A	.24773	.23294
92G	.29196	.22072
92M	.60552	.58458
92R	.33327	.32019
92Y	.43546	.30023
93C	.42017	.38514
93P	.67108	.61810
95B	.50209	.46298
95C	.29598	.26347
96B	.28158	.25670
96D	.20053	.17441
96R	.40588	.35399
97B	.48284	.42288
98C	.42441	.39773
98G	.40150	.38401
98H	.30610	.22202
98Z	.43752	.21020
Mean	.432	.391
Weighted Average	.450	.433

## **The Corrected Army and Youth Population Composites Validities for the 150 Job Families**

Table 3 shows the corrected 7-test composite validities for the 150 job families for the Army input and for the corrected youth population. Back and cross validities are computed separately for each family. Again, in every case, back validities are higher than in the cross samples and generally substantially higher. Again, Appendices C and D show the 7-test ASVAB validities for the two samples.

The mean validities of the corrected composites in the back samples in the Army input samples is .544, compared to .450 in the cross samples, a loss of about .06. The weighted average of the back samples is .682 in the youth population, compared to .584 in the cross sample, a loss of about .09.

Finally, the difference in corrected mean validities in the cross samples for the Army Input Population is .06, a substantial increase over the uncorrected values. The difference in the corrected average validities in the cross samples for the Army is .03, also a substantial increase. The mean validities are more relevant to selection than to the classification process and the average weighted validities are more relevant to the classification process because that process incorporates an optimal assignment procedure for matching individuals and jobs based on predicted performance scores.

Table 3

*Corrected Composite Validity Coefficients for the Army Input/Youth Populations*

MOS	Validity Coefficients			
	<u>Army</u>		<u>Youth</u>	
	Back	Cross	Back	Cross
11B	.35557	.35112	.49377	.45452
11C	.48011	.47140	.64946	.55578
11H	.47991	.47651	.62002	.55041
11M	.38246	.37266	.52003	.47301
12B	.45835	.45320	.61783	.54053
12C	.49925	.48418	.62199	.53602
12F	.51870	.48965	.66552	.54868
13B	.42999	.42037	.56139	.51303
13C	.58759	.56690	.75876	.60345
13E	.57888	.56613	.75801	.59671
13F	.50863	.49592	.67890	.56751
13M	.45836	.40742	.63881	.51909
13N	.47770	.46166	.66083	.55167
13R	.46731	.43982	.68989	.53419
14D	.59536	.55999	.74172	.59266
15E	.52902	.45171	.69576	.54502
16E	.57830	.51169	.72748	.55324
16P	.53917	.51370	.63628	.55947
16R	.48420	.44627	.66441	.55933
16S	.49789	.49225	.65952	.57421
19D	.50221	.49514	.65426	.56642
19E	.54984	.54385	.69357	.59476
19K	.45754	.36428	.59912	.46074
24Z	.63907	.57341	.79800	.57581
25M	.44431	.39909	.64254	.52999
25S	.57222	.53238	.78451	.55066
27E	.53452	.49926	.70653	.55251
27Z	.52672	.52111	.68253	.58459
29V	.48984	.48040	.62543	.55855
31C	.61523	.49489	.77466	.51948
31K	.40985	.28397	.55163	.40329
31L	.52744	.49883	.66829	.55785
31N	.54505	.51914	.72145	.56951
31P	.65089	.48584	.83292	.47823
31Q	.51425	.49798	.67277	.56739
31R	.61426	.50382	.76577	.52987
31S	.64583	.44925	.80269	.50936
31V	.62154	.51107	.80903	.50541
35E	.52286	.47452	.75575	.54224
35H	.50778	.46044	.60884	.51919
35J	.54969	.43798	.70127	.52604
35N	.65609	.61162	.78912	.60570
36M	.75110	.63321	.85175	.56733
41C	.64060	.61582	.76311	.62617
44B	.53102	.45037	.63715	.51043
44E	.44365	.40489	.55024	.47730
45B	.56271	.52492	.73809	.57118
45D	.56832	.49913	.69567	.54417
45E	.61976	.57018	.78076	.58788
45K	.55627	.48855	.67980	.54750
45L	.55824	.45066	.71966	.49777

MOS	Validity Coefficients			
	<u>Army</u>		<u>Youth</u>	
	Back	Cross	Back	Cross
45N	.52594	.49411	.66169	.54664
45T	.59834	.56139	.69650	.57783
46Z	.39820	.33232	.54999	.44062
51B	.57997	.51983	.70142	.56316
51K	.55622	.48091	.66721	.50628
51M	.61290	.52836	.77332	.55599
51R	.72735	.63708	.83247	.58909
51T	.69949	.68260	.82878	.63437
52C	.51847	.49950	.72820	.56575
52D	.61902	.47635	.77363	.50941
54B	.33690	.31319	.39624	.35352
55B	.68653	.67097	.80050	.64651
55D	.59594	.56219	.70134	.59336
55G	.62355	.56970	.72013	.59022
57E	.56866	.51885	.69505	.56733
62B	.71022	.70041	.78182	.68210
62E	.70725	.57203	.80824	.54691
62F	.72998	.62937	.81959	.59725
62J	.56679	.48714	.69732	.50801
63B	.47526	.45948	.64335	.55496
63D	.53042	.50375	.68499	.56185
63E	.71616	.62157	.80390	.59518
63G	.67783	.56261	.78421	.55378
63H	.63511	.54538	.74330	.55806
63J	.70097	.68990	.80042	.66705
63N	.74692	.61635	.83849	.57170
63S	.65802	.56843	.80137	.55093
63T	.63891	.46930	.78044	.52761
63W	.61518	.54255	.75893	.56368
63Y	.64915	.57590	.81235	.55567
67N	.50250	.45041	.66992	.51928
67R	.62610	.54449	.76083	.55700
67T	.37799	.16329	.55771	.40282
67U	.49360	.37693	.68342	.50313
67V	.61069	.51263	.78232	.52975
67Y	.66548	.61240	.79063	.61280
68B	.50367	.43583	.70454	.54285
68D	.53799	.41350	.69512	.49474
68F	.58908	.51937	.78546	.56298
68G	.62911	.56895	.81818	.55498
68J	.63364	.53092	.81517	.52490
68M	.52188	.46045	.75042	.51527
68N	.50326	.47269	.72273	.53901
68Z	.51946	.48654	.73914	.56039
71D	.45889	.44102	.61008	.53570
71G	.42733	.40782	.60454	.51952
71L	.45134	.43017	.69249	.53181
71M	.55804	.50490	.75850	.55180
72E	.55252	.49952	.77367	.54009
72G	.56028	.51726	.74927	.55357
73C	.49543	.46296	.72521	.53841
73D	.49591	.45613	.69676	.53307
74B	.59794	.52733	.79906	.54223

MOS	Validity Coefficients			
	<u>Army</u>		<u>Youth</u>	
	Back	Cross	Back	Cross
75B	.45525	.39977	.65678	.50339
75C	.52680	.47595	.73662	.53987
75D	.49377	.47157	.70121	.55575
75E	.47979	.46459	.66146	.56012
75F	.59071	.52670	.79138	.56116
76J	.56625	.55794	.71186	.60010
76P	.44831	.42281	.61024	.52041
76V	.40253	.04607	.53034	.25900
76X	.65146	.60770	.79941	.60739
77F	.40547	.37301	.57696	.49269
77W	.49499	.49386	.62633	.56521
81L	.29548	.28209	.53445	.46261
82C	.45481	.43397	.62136	.52639
88H	.58812	.50804	.74462	.56376
88M	.37267	.34806	.55119	.47390
88N	.26175	.16857	.34515	.25599
91A	.66021	.47743	.80147	.48560
91D	.32882	.25992	.44542	.37396
91E	.53008	.39568	.74207	.50829
91F	.52670	.43839	.70985	.51362
91G	.58092	.51645	.74229	.56326
91K	.60485	.50531	.73990	.53967
91M	.53583	.48901	.69283	.58059
91P	.49806	.41833	.69914	.55468
91Q	.43201	.38554	.62044	.50826
91R	.50921	.48254	.68814	.55149
91S	.57483	.57043	.74567	.60050
91T	.53234	.35162	.68859	.48443
91Z	.39660	.37471	.49584	.43186
92A	.37872	.36040	.58317	.49046
92G	.50276	.41344	.72345	.51389
92M	.70381	.63995	.86514	.56256
92R	.49734	.46615	.68853	.54690
92Y	.39802	.21934	.59315	.44339
93C	.70696	.57946	.86898	.49631
93P	.71042	.65400	.86240	.58275
95B	.58560	.53727	.75922	.56452
95C	.64251	.53302	.81476	.53631
96B	.68816	.54983	.83818	.51819
96D	.39045	.35064	.55878	.46387
96R	.49763	.41393	.67309	.51757
97B	.65118	.50681	.81039	.52119
98C	.54761	.51231	.68862	.55654
98G	.51482	.48152	.73140	.54645
98H	.56786	.38439	.66351	.40812
98Z	.50194	.29143	.58831	.36590
Mean	.544	.480	.701	.534
Weighted Average	.507	.477	.660	.541

## **The Corrected Army and Youth Composite Validities for 66 MOS**

Table 4 shows corrected 9-test LSE composite validities for 66 MOS and for the operational unit-weighted (i.e., pre-January 2002) Aptitude Area composites. The composite validities for the MOS are shown for both back and cross samples. The 66 MOS sample size was 75,046. Soldiers that had ASVAB test scores and SQTs and also had race and gender information (not employed in the present study) comprised the data set used to compute the sets of validity coefficients shown in Table 4.

The weights for the LSEs used to obtain the cross and back-validity coefficients were computed on a smaller independent sample obtained in an earlier time frame. The means of these correlation coefficients were computed by summing the MOS validity coefficients, weighted by the sample size for each MOS, and dividing by the total N of 75,046. The means of these correlation coefficients in the table have been corrected for attenuation of the criterion and for restriction effects due to assigning from an AIP to MOS samples. These validity coefficients, of course, would be larger if corrected back to the youth population.

The mean weighted validity in the back samples is .535 compared to .464 in the cross samples, a loss of about .08 points. The mean of the unit-weighted AA composites has a validity of .382 across the 66 MOS, lower, as expected, than the mean cross validity. More than a dozen of the 66 MOS have relatively small sample sizes – Ns below 300. Validities in the cross samples proved nevertheless to be fairly robust, except for three coefficients in the .20s that had sample sizes of Ns below 300.



**Table 4**  
**Composite Validity Coefficients by 66 Separate Army MOS <sup>1</sup>**

MOS	N	Validity Coefficients		
		Back	Cross	AA
11B0	3490	.370	.343	.305
11C0	1896	.405	.365	.335
11H1	1027	.402	.355	.310
11M0	1416	.318	.296	.275
12C0	726	.486	.425	.389
13B0	7851	.432	.431	.392
13F0	1757	.522	.467	.371
13M1	375	.405	.365	.244
13N1	463	.516	.407	.357
13R0	162	.415	.276	.087
*16D0	247	.623	.513	.365
16P0	450	.561	.425	.361
16R2	399	.586	.457	.384
16S1	837	.482	.451	.392
19E0	1661	.510	.460	.413
19K0	2714	.530	.489	.455
*29E0	368	.788	.574	.493
*29J0	259	.714	.480	.415
*29N0	281	.581	.497	.329
29V0	135	.708	.543	.313
31C0	2587	.530	.422	.273
31K0	2531	.518	.459	.430
31L0	857	.484	.473	.420
31V0	1599	.538	.438	.370
*33T0	68	.852	.652	.546
*35K0	161	.525	.431	.384
*43E0	354	.420	.325	.299
44B0	410	.709	.607	.563
44E0	232	.762	.613	.576
45K0	321	.659	.558	.439
51B0	839	.539	.453	.408
52D0	2285	.746	.598	.543
54B0	995	.648	.578	.493
55B0	840	.553	.499	.427
62B0	1090	.711	.668	.621
62E0	676	.624	.505	.474
62J0	378	.569	.483	.440

MOS	N	Validity Coefficients		
		Back	Cross	AA
63B0	4040	.736	.669	.618
63E0	540	.713	.519	.460
63G0	300	.586	.426	.359
63S0	931	.640	.427	.368
63T1	700	.656	.429	.370
67V0	741	.511	.376	.337
68B0	215	.248	.221	.066
68G0	378	.667	.550	.383
68J1	355	.470	.380	.335
71D0	378	.676	.426	.192
71L0	238	.585	.440	.337
71M0	249	.547	.482	.219
72E0	502	.464	.428	.303
72G0	324	.462	.436	.294
73C0	449	.499	.407	.335
*74D0	200	.537	.408	.281
75B0	1051	.598	.456	.270
75D0	337	.494	.324	.143
*76C0	2263	.551	.449	.215
*76Y0	3591	.457	.375	.225
77F0	2456	.646	.596	.170
*81E0	81	.625	.529	.386
*84B0	84	.745	.697	.646
*84F0	58	.494	.412	.312
88H0	469	.417	.356	.288
88M0	4758	.575	.544	.501
91A0	1493	.495	.414	.362
*94B0	3069	.487	.432	.394
95B0	2059	.554	.417	.380
Weighted Average		.535	.464	.382
Total N		75046		

<sup>1</sup> From Zeidner, J. and Johnson, C.D. (Sept, 2001). Response to Expert Panel.

The \* denotes 14 MOS not included in the 150 Job Family Study, either because of small Ns or because MOS were modified or merged.

## Comparison of Average Weighted Validities Coefficients for 66 MOS and 150 Job Families

Table 5 shows the weighted average validity coefficient for three samples: the 150 job families; the youth population; and the 66 MOS. All validities have been corrected for restriction in range effects due to being assigned to 66 Army MOS or to 150 Army job families. Also, the 150 job composites have been separately corrected to the youth population. Both back and cross validities are shown separately.

In the back sample, the average weighted youth validity coefficient is higher than for either of the other two averages. The weighted average for the 66 MOS was found to have the lowest average. We find an average loss of about .13 for the youth population in the cross samples, a loss of .07 for the 66 MOS and .03 for the 150 in the cross samples. The smaller coefficients, or those with the largest validity shrinkage, for the 66 MOS may be a function of smaller sample sizes for the 66 MOS and/or that 16 MOS in that set are not included in the 150 data set.

**Table 5**  
*Comparison of Weighted Average Validity Coefficients for 150 Job Families and 66 MOS*

Sample	Sample Size	Corrected Validity Coefficients	
		Back	Cross
Army 150 Job Families	237,680	.507	.477
Youth Population	237,680	.660	.534
Army 66 MOS	75,046	.535	.464

## Composite Validities for the 17- and 9-Job Families

Tables 6 through 9 show the LSE composite validities for each of the families within the 17- and 9-family structures, along with means and weighted averages for each condition.

**Table 6**  
***Uncorrected Composite Validity Coefficients***  
***for the Army Input 17-Job Families***

Name	Back	Cross
1	.32895	.32775
2	.38728	.38613
3	.37692	.37526
4	.50738	.50484
5	.44695	.44259
6	.44568	.44376
7	.35265	.34551
8	.52194	.51505
9	.47883	.47668
10	.41168	.40945
11	.54402	.54283
12	.40887	.40026
13	.50155	.49775
14	.41957	.41675
15	.35562	.35181
16	.30114	.29281
17	.42380	.41856
Mean	.42429	.42046
Weighted Average	.43575	.43248

**Table 7**  
***Corrected Composite Validity Coefficients for Army Input and Youth Populations***  
***for 17-Job Families***

Name	Army Input		Youth	
	Back	Cross	Back	Cross
1	.50700	.47730	.71074	.54804
2	.46748	.45391	.65372	.54123
3	.38364	.38016	.52598	.47911
4	.48060	.47867	.64058	.56090
5	.51650	.49733	.67791	.56056
6	.52408	.50313	.68060	.55248
7	.51555	.48386	.72457	.54024
8	.45544	.45251	.60230	.53538
9	.64322	.58359	.77233	.57639
10	.49492	.47685	.63814	.53524
11	.66308	.61984	.76119	.61073
12	.59366	.53585	.75050	.55300
13	.50551	.50032	.65742	.56330
14	.48469	.46578	.65911	.54080
15	.44600	.42668	.61566	.51869
16	.54623	.48408	.71229	.50168
17	.54136	.51603	.72214	.56432
Mean	.51582	.49035	.67677	.54601
Weighted Average	.49738	.47873	.65268	.54208

**Table 8**  
*Uncorrected Composite Validity Coefficients for  
 Army Input 9-Job Families*

Name	Back	Cross
1	.36070	.36008
2	.42324	.42168
3	.42460	.42356
4	.52194	.51505
5	.44113	.43955
6	.50810	.50630
7	.50155	.49775
8	.41957	.41675
9	.36405	.36066
Mean	.44054	.43793
Weighted Average	.43308	.43072

**Table 9**  
*Corrected Composite Validity Coefficients for Army Input and Youth Populations  
for 9-Job Families*

Name	Army Input		Youth	
	Back	Cross	Back	Cross
1	.47711	.45792	.67664	.53723
2	.41795	.41522	.56693	.50911
3	.51606	.49614	.68556	.55217
4	.45544	.45251	.60230	.53538
5	.56345	.52770	.70041	.55455
6	.64569	.60041	.75511	.59582
7	.50551	.50032	.65742	.56330
8	.48469	.46578	.65911	.54080
9	.50691	.47544	.68070	.52929
Mean	.50809	.48794	.66491	.54641
Weighted Average	.49550	.47759	.65184	.54059

### Comparison of Average Weighted Validity Coefficients for 17- and 9-Job Families

Table 10 presents a comparison of the average weighted cross validities for the two job family structures. The validities were found to be consistent with the patterns of validity averages found for the 150 job families. Of note is the very small difference in the weighted validities of .001 between the 17 and 9 job families. However, Zeidner, et al. (August, 2000) recommended the use of the 9-test 17-job family LSEs for the second tier over a 9-job family LSEs on the basis of MPP, not validity. The MPP for 17-families is .145 compared to the MPP for 9-families of .123. (In contrast, the operational unit-weighted AA composite baseline index had an MPP of .023.) A second reason for our preference for the 17 families is that it has essentially the same structure as the 9-families, but shredded into 8 additional families, making for a much more homogeneous and rational system. A 17-families structure also would be better operationally for counseling purposes, the principal use of the second tier in a two-tiered system and for establishing more precise cut scores. The recommendation of 17-families over 9-families was made only for least squares estimates that are not converted to Army standard scores with equal means and standard deviations.

**Table 10**  
*A Comparison of Average Weighted Cross Validities for 17- and 9- Job Families*

Family	Validity		Youth Population
	Uncorrected Army Input	Corrected Army Input	
17	.432	.479	.542
9	.431	.478	.541



## SUMMARY AND CONCLUSIONS

### Summary

Composite validity coefficients for the 7-test ASVAB were computed for the Army 150 job families (proposed first tier). These coefficients were separately corrected, first for restriction in range due to Army input, and then for the youth population. Back and cross validities of LSE composites were computed on a total sample of 237,680. Comparisons were made to composite validities obtained in an earlier study of 66 MOS.

Additionally, the weighted aggregation of composite test validities corresponding to 17 job families (proposed second-tier) and 9 job families (interim test battery) were computed separately and corrected to the Army input sample and to the youth population.

The magnitude of validities for each condition fell within the expected ranges, with the average cross validity falling .030 points, even after allowing sampling error to take its full toll.

### Conclusions

The weighted average of uncorrected back sample composite validities in the 7-test ASVAB for the 150 job family first-tier job structure were .450, and for the 17 and 9 family composites were .435 and .433, respectively.

There is a substantial increase in back sample validities after correcting for restriction in range effects (weighted average increase of .062 across the three job families). Such corrections are necessary and important to obtain an accurate index of validities.

The unbiased estimates of corrected validities remain quite robust in the cross samples, for all three job family structures. For example, in the 150 job families, a weighted average loss of only .030 was found between the back validity of .507 and the cross validity of .477; the

losses of the other two families were even smaller. Some investigators believe that a sample size of 500 or more is necessary to obtain stable regression weights. However, there is little empirical data available to confirm this belief. The current study had a number of sample sizes below the 400 to 500 range. Even these small samples generally demonstrated sufficient stability by showing modest reductions in cross samples.

The validities reported in this research report may serve as a standard reference of ASVAB test validities for Army jobs. Appendices C and D show uncorrected and corrected Army input and youth population validities for this purpose. Additionally, these data are of practical value in setting Army minimum cut scores.

The authors believe that the four Appendices included in this report represent the largest compendium of Army ASVAB test validities and composite validities extant. But the data sets employed in this study are more than 10 years old. Considering that MOS are constantly being revised, dropped, or new ones added, researchers need to exercise care concerning the degree of similarity between the 1989 vintage MOS used in the current study and those being used in the future.

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## APPENDICES

## APPENDIX A

[A note on interpreting the Appendix tables --- There are four lines of output for each job family: the first line identifies the job family and the second line presents the estimated composite validity coefficient; the fourth line presents the estimated beta coefficients for each ASVAB subtest, while the third line indicates the order (from high to low) of the estimated coefficients.]

**Table A.1**  
**Biased 7-Test Composite Validities and ASVAB Test Betas for 150 Job Families (Uncorrected)**  
**(Sample A)**

	GS	AR	AS	MK	MC	EI	VE
11B							
0.35193							
	4	6	2	1	3	5	7
	0.04841	0.04189	0.09915	0.12366	0.08810	0.04208	0.03363
11C							
0.45618							
	7	2	1	3	4	5	6
	0.02809	0.11877	0.15320	0.10413	0.09347	0.06135	0.06107
11H							
0.48450							
	5	4	2	1	3	6	7
	0.07208	0.07507	0.18461	0.18820	0.09394	0.02498	0.01971
11M							
0.37956							
	5	2	1	4	3	7	6
	0.04359	0.09243	0.14228	0.07545	0.09167	0.03164	0.03479
12B							
0.44701							
	7	4	3	1	2	6	5
	0.05382	0.06883	0.07833	0.16165	0.11838	0.05421	0.06603
12C							
0.50537							
	7	4	3	2	1	5	6
	0.03970	0.09079	0.13809	0.15758	0.16197	0.04654	0.04454
12F							
0.58313							
	7	5	1	2	4	6	3
	-0.17085	0.08219	0.39097	0.19464	0.10109	0.01284	0.15282
13B							
0.42120							
	7	3	4	2	1	6	5
	0.01250	0.10064	0.09817	0.11911	0.17864	0.01932	0.02366
13C							
0.58705							
	6	7	2	3	1	5	4
	0.02644	0.01499	0.19024	0.16707	0.20562	0.05736	0.12443
13E							
0.57978							
	7	1	5	2	6	4	3
	-0.01520	0.27376	0.04090	0.18885	0.00410	0.09476	0.15823
13F							
0.48094							
	5	1	4	3	7	6	2
	0.08182	0.17419	0.11014	0.11406	0.00367	0.04690	0.11769
13M							
0.40310							
	6	3	7	2	5	1	4
	-0.01702	0.11898	-0.04272	0.14028	0.05270	0.15235	0.10400

13N  
 0.45583  
     7      2      4      1      6      5      3  
     0.01344 0.10953 0.10108 0.18195 0.03675 0.07172 0.10591  
 13R  
 0.47018  
     7      4      1      5      2      6      3  
    -0.00671 0.11724 0.17626 0.05617 0.14141 0.01020 0.13301  
 14D  
 0.65071  
     3      1      2      5      6      7      4  
     0.13460 0.38103 0.34590-0.00048-0.01687-0.07767 0.06613  
 15E  
 0.54735  
     2      1      4      3      7      5      6  
     0.23166 0.26233 0.11193 0.12638-0.04459 0.03002-0.01556  
 16E  
 0.58791  
     7      4      1      2      3      5      6  
    -0.00515 0.08473 0.32509 0.20020 0.10457 0.04510 0.03718  
 16P  
 0.53281  
     6      1      2      4      5      3      7  
     0.02516 0.23787 0.15320 0.10938 0.09482 0.13959-0.07578  
 16R  
 0.48724  
     5      2      1      4      3      6      7  
     0.04938 0.17262 0.17376 0.08649 0.09103 0.04499 0.03768  
 16S  
 0.50616  
     7      2      1      6      5      4      3  
     0.02426 0.14121 0.15709 0.04844 0.09290 0.10771 0.10809  
 19D  
 0.50232  
     7      6      1      2      3      4      5  
     0.05485 0.06032 0.13626 0.12832 0.11190 0.10173 0.08707  
 19E  
 0.57355  
     5      2      1      6      4      3      7  
     0.09353 0.16911 0.18283 0.08133 0.10067 0.10225 0.04058  
 19K  
 0.43332  
     7      3      5      2      4      1      6  
    -0.10220 0.10141 0.07100 0.12326 0.07922 0.24824 0.02798  
 24Z  
 0.63823  
     6      7      4      3      5      2      1  
     0.02520-0.02046 0.16691 0.18444 0.08596 0.18937 0.22123  
 25M  
 0.39291  
     7      3      6      5      2      1      4  
    -0.10853 0.15049-0.10010 0.04918 0.15701 0.16100 0.14679  
 25S  
 0.55642  
     6      5      2      4      3      7      1  
     0.04776 0.08948 0.14668 0.10053 0.14579-0.07110 0.26994

27E  
 0.54105  
     7      3      2      1      6      4      5  
     0.02138 0.12181 0.12380 0.17488 0.06801 0.11878 0.10970  
 27Z  
 0.51895  
     5      6      2      1      3      4      7  
     0.07443 0.06963 0.13383 0.15134 0.12783 0.08088 0.06446  
 29V  
 0.50919  
     7      3      1      2      6      4      5  
    -0.00869 0.11853 0.17070 0.12399 0.08589 0.11127 0.09225  
 31C  
 0.56513  
     3      4      5      1      2      7      6  
     0.11420 0.09530 0.08882 0.19756 0.15785 0.03371 0.06542  
 31K  
 0.32054  
     7      6      3      2      5      1      4  
    -0.14785-0.10405 0.11581 0.23150-0.01379 0.23448 0.03411  
 31L  
 0.50492  
     7      2      5      3      4      1      6  
    -0.02648 0.14930 0.08936 0.13436 0.11915 0.20986-0.02378  
 31N  
 0.55878  
     6      1      3      5      7      2      4  
     0.07464 0.17384 0.12401 0.09758 0.04062 0.14608 0.09759  
 31P  
 0.61681  
     7      3      4      1      6      5      2  
    -0.05157 0.13657 0.07072 0.33302 0.00473 0.04050 0.25903  
 31Q  
 0.51932  
     7      3      1      2      6      4      5  
     0.00264 0.11900 0.17665 0.16559 0.03273 0.11387 0.10387  
 31R  
 0.59280  
     5      1      2      3      7      6      4  
    -0.01380 0.32541 0.23524 0.19396-0.10459-0.03165 0.16406  
 31S  
 0.47604  
     5      1      6      3      7      4      2  
     0.05443 0.26980-0.02260 0.13085-0.22310 0.08230 0.21323  
 31V  
 0.65962  
     5      4      6      1      7      3      2  
     0.10131 0.12872 0.07879 0.26952-0.02663 0.14826 0.17620  
 35E  
 0.52670  
     7      2      6      5      4      3      1  
    -0.08429 0.20042-0.03533 0.04118 0.08544 0.11956 0.32010  
 35H  
 0.54583  
     4      3      1      2      6      5      7  
     0.07578 0.08070 0.28632 0.13867 0.06390 0.07324 0.01469



35J  
 0.49659  
     4      3      1      2      6      7      5  
     0.09450 0.15650 0.21451 0.17403-0.01253-0.02378 0.07280  
 35N  
 0.60321  
     5      7      1      2      4      6      3  
     0.06003 0.00929 0.24875 0.17993 0.11808 0.02673 0.17589  
 36M  
 0.77196  
     7      5      2      1      3      4      6  
     0.07072 0.14043 0.17674 0.27644 0.15242 0.14357 0.08739  
 41C  
 0.61054  
     6      5      1      4      2      7      3  
     -0.03065 0.02406 0.27746 0.07945 0.25126-0.06259 0.24356  
 44B  
 0.61877  
     3      6      2      1      5      4      7  
     0.14556 0.03933 0.21675 0.25040 0.04180 0.11823 0.02778  
 44E  
 0.41931  
     2      1      4      3      6      5      7  
     0.12193 0.13953 0.10925 0.11565 0.05619 0.06257-0.05271  
 45B  
 0.55743  
     7      1      3      4      6      5      2  
     -0.03197 0.21339 0.16713 0.13635 0.03398 0.06414 0.17385  
 45D  
 0.47646  
     6      4      5      3      1      7      2  
     0.04000 0.08137 0.05014 0.08634 0.24767-0.05996 0.15664  
 45E  
 0.63636  
     6      7      2      1      5      3      4  
     -0.03802-0.05560 0.23516 0.29272 0.12063 0.16032 0.14305  
 45K  
 0.49318  
     2      1      3      7      6      4      5  
     0.17711 0.36298 0.16572-0.22937-0.08108 0.09219 0.05098  
 45L  
 0.52262  
     3      5      7      1      6      4      2  
     0.12483 0.11259-0.14222 0.16338 0.10807 0.11889 0.13118  
 45N  
 0.52064  
     5      6      1      2      4      3      7  
     0.04957 0.03824 0.20318 0.16293 0.12819 0.14405-0.04452  
 45T  
 0.65198  
     1      5      3      6      4      2      7  
     0.24612 0.09598 0.17060 0.08366 0.10875 0.23323-0.11787  
 46Z  
 0.44284  
     7      4      3      5      2      1      6  
     -0.08672 0.05563 0.10680 0.01863 0.10819 0.33498-0.05884

51B  
 0.58154  
     7        2        4        1        5        3        6  
 -0.10679 0.20573 0.15655 0.26344 0.03862 0.19042 0.00638  
 51K  
 0.54863  
     7        6        1        4        5        3        2  
 -0.13385-0.09227 0.28333 0.19569-0.02355 0.22159 0.24586  
 51M  
 0.62867  
     7        2        3        4        5        1        6  
 0.00752 0.28288 0.05741 0.04830 0.04664 0.33756 0.01332  
 51R  
 0.70725  
     6        1        2        4        5        3        7  
 0.06623 0.20126 0.19915 0.17526 0.12886 0.19190-0.01966  
 51T  
 0.67759  
     3        2        1        5        4        6        7  
 0.12298 0.22294 0.23996 0.10125 0.12009 0.09911-0.00240  
 52C  
 0.48151  
     4        1        3        2        7        6        5  
 0.10567 0.16434 0.11104 0.15759-0.04568 0.07566 0.07725  
 52D  
 0.63871  
     2        4        1        5        3        7        6  
 0.20391 0.13300 0.26768 0.11124 0.16624-0.05759 0.01710  
 54B  
 0.26785  
     4        6        1        3        2        5        7  
 0.04305-0.03683 0.13278 0.08867 0.13190 0.03113-0.08714  
 55B  
 0.70744  
     7        4        1        2        3        5        6  
 0.04334 0.11621 0.36309 0.15215 0.12608 0.09943 0.04561  
 55D  
 0.58306  
     5        2        1        3        4        6        7  
 0.09653 0.20289 0.23527 0.10854 0.09783 0.07292-0.04153  
 55G  
 0.60059  
     1        6        3        4        2        5        7  
 0.23469 0.07183 0.15056 0.10326 0.16060 0.07257-0.01109  
 57E  
 0.56519  
     6        7        3        2        1        5        4  
 0.02853-0.00850 0.17984 0.20816 0.21856 0.05275 0.07241  
 62B  
 0.70824  
     6        4        1        5        2        3        7  
 0.05241 0.09249 0.38937 0.08507 0.17559 0.12876-0.02537  
 62E  
 0.69968  
     7        4        1        5        6        3        2  
 -0.02659 0.08066 0.46981 0.05098 0.04180 0.10830 0.16591

62F  
0.71110  
5 6 1 3 7 2 4  
0.05284 0.01255 0.44407 0.17615-0.02151 0.19166 0.07100

62J  
0.52029  
3 2 1 5 6 4 7  
0.15677 0.15747 0.26449 0.02246 0.01289 0.10817-0.05768

63B  
0.46518  
7 3 1 5 6 4 2  
-0.04041 0.14040 0.16781 0.05277 0.05141 0.09163 0.16350

63D  
0.55812  
7 2 1 6 3 4 5  
-0.04632 0.18212 0.31072-0.00382 0.15691 0.06511 0.02907

63E  
0.72643  
3 5 1 4 2 6 7  
0.13602 0.06869 0.46206 0.07173 0.16230 0.04461-0.04171

63G  
0.70735  
7 5 1 6 2 3 4  
-0.04281 0.05504 0.37132 0.04490 0.19648 0.14115 0.12915

63H  
0.63834  
7 4 1 6 3 2 5  
-0.00441 0.10230 0.34535 0.02647 0.11641 0.17214 0.04740

63J  
0.72462  
5 4 1 6 2 3 7  
0.03776 0.12132 0.39743 0.01980 0.18331 0.13347 0.01322

63N  
0.73053  
7 2 1 6 4 5 3  
-0.01573 0.19651 0.45110 0.05037 0.07776 0.05596 0.13921

63S  
0.66717  
7 5 1 3 4 6 2  
-0.04102 0.11968 0.22432 0.18650 0.15451 0.05587 0.21046

63T  
0.65894  
7 2 4 5 1 6 3  
-0.17081 0.27026 0.01030-0.02481 0.50503-0.13719 0.25267

63W  
0.59846  
7 6 4 1 2 3 5  
-0.00704 0.02595 0.14314 0.22940 0.17295 0.15671 0.08186

63Y  
0.66315  
6 1 2 3 7 4 5  
0.08721 0.21305 0.16180 0.14251 0.07437 0.12146 0.09908

67N  
0.50663  
7 3 2 5 1 4 6  
0.00018 0.14525 0.16435 0.04670 0.17612 0.11866 0.00160

67R  
 0.60172  
     7        3        1        6        4        2        5  
     -0.00835 0.16830 0.23894 0.01073 0.11505 0.17941 0.07713  
 67T  
 0.45594  
     7        3        6        4        2        5        1  
     -0.22068 0.09270-0.06800 0.02047 0.26589-0.06090 0.41364  
 67U  
 0.44662  
     5        1        7        3        2        6        4  
     0.04356 0.18003-0.01449 0.11098 0.14642 0.01890 0.07657  
 67V  
 0.62155  
     4        2        3        1        5        7        6  
     0.06156 0.22743 0.20708 0.24934 0.05670-0.00056 0.02984  
 67Y  
 0.65107  
     5        1        3        2        7        4        6  
     0.11084 0.21965 0.14427 0.20006 0.01114 0.14292 0.04823  
 68B  
 0.47301  
     4        6        3        2        7        1        5  
     0.08103 0.03655 0.08215 0.20602-0.06788 0.23378 0.04369  
 68D  
 0.39365  
     5        7        3        1        6        4        2  
     0.03107-0.09892 0.13273 0.21591-0.03922 0.13093 0.13596  
 68F  
 0.58605  
     6        1        5        4        7        3        2  
     0.03858 0.18871 0.08231 0.15761-0.03477 0.16915 0.17998  
 68G  
 0.59095  
     7        1        4        2        6        5        3  
     -0.08055 0.30671 0.11504 0.20183 0.00741 0.02059 0.18682  
 68J  
 0.60780  
     7        2        6        3        5        4        1  
     -0.05110 0.23074-0.01730 0.19135 0.04835 0.07652 0.28302  
 68M  
 0.56607  
     5        3        6        2        7        4        1  
     0.03971 0.22593 0.02735 0.23648-0.18333 0.04421 0.27153  
 68N  
 0.51222  
     6        2        7        3        4        5        1  
     -0.05093 0.22929-0.05423 0.22145-0.00109-0.01632 0.24195  
 68Z  
 0.55327  
     4        2        5        3        6        7        1  
     0.11783 0.15845 0.05570 0.12597 0.01841-0.12698 0.31771  
 71D  
 0.46886  
     6        5        4        1        3        2        7  
     0.04416 0.05080 0.05740 0.21897 0.07909 0.14381 0.02740

71G  
 0.38956  
     6        2        7        1        3        5        4  
     -0.02669 0.16601-0.04489 0.17119 0.08053 0.05767 0.05899  
 71L  
 0.43122  
     7        3        5        1        4        6        2  
     -0.07849 0.17340-0.01016 0.24561-0.00643-0.03651 0.18698  
 71M  
 0.52183  
     4        2        7        1        6        5        3  
     0.07204 0.15496-0.09122 0.31831-0.04750 0.06153 0.10160  
 72E  
 0.55830  
     7        3        4        2        6        5        1  
     -0.09533 0.12540 0.05117 0.18504-0.02176 0.05042 0.39959  
 72G  
 0.55188  
     7        2        6        1        4        5        3  
     -0.07617 0.22998-0.01037 0.26364 0.06736 0.01150 0.17555  
 73C  
 0.49787  
     4        1        6        3        7        5        2  
     0.02994 0.26458-0.03213 0.17513-0.06260 0.01158 0.18479  
 73D  
 0.47596  
     6        1        5        2        7        4        3  
     -0.03681 0.24423-0.00303 0.20761-0.04981 0.06569 0.13862  
 74B  
 0.63604  
     7        3        5        2        6        4        1  
     -0.11770 0.25981 0.02567 0.26555-0.00258 0.08587 0.27629  
 75B  
 0.44286  
     6        1        4        2        5        7        3  
     -0.05080 0.21837 0.11397 0.21447-0.00441-0.19831 0.18890  
 75C  
 0.54169  
     7        1        4        2        5        6        3  
     -0.05415 0.28676 0.00135 0.22763-0.01445-0.01500 0.19709  
 75D  
 0.50365  
     5        1        7        2        6        4        3  
     0.04693 0.24412-0.08512 0.18866-0.03093 0.07876 0.13434  
 75E  
 0.46347  
     4        1        3        6        2        5        7  
     0.07482 0.13535 0.09863 0.06602 0.11429 0.07433 0.05589  
 75F  
 0.60860  
     7        1        5        3        6        4        2  
     -0.02436 0.35344-0.00806 0.12002-0.01367 0.03241 0.27301  
 76J  
 0.56359  
     7        3        1        4        2        5        6  
     0.03322 0.14042 0.16681 0.12781 0.14893 0.09131 0.05031

76P  
 0.45625  
     6        4        2        1        3        7        5  
 -0.00102 0.09212 0.16039 0.17004 0.13276-0.01672 0.07829  
 76V  
 0.39487  
     4        3        1        2        5        7        6  
 0.00700 0.11103 0.45775 0.15103-0.04456-0.29715-0.07556  
 76X  
 0.61974  
     4        3        2        1        5        7        6  
 0.09369 0.14403 0.21923 0.31780 0.07733-0.04508 0.01879  
 77F  
 0.40414  
     7        5        1        2        4        3        6  
 0.01717 0.02804 0.20068 0.19941 0.03419 0.04538 0.02709  
 77W  
 0.49398  
     7        2        1        5        4        3        6  
 -0.03018 0.14407 0.22865 0.07134 0.08917 0.09557 0.05859  
 81L  
 0.31854  
     7        1        5        3        6        4        2  
 -0.04148 0.16016-0.01333 0.13017-0.01494-0.00005 0.14371  
 82C  
 0.47013  
     7        5        1        4        2        6        3  
 0.00585 0.10420 0.14131 0.10909 0.11157 0.05621 0.11143  
 88H  
 0.63020  
     1        4        7        2        5        6        3  
 0.37685 0.07170-0.05785 0.16020 0.05212 0.03190 0.11025  
 88M  
 0.38880  
     5        1        7        6        4        3        2  
 0.03255 0.18354-0.19178 0.01790 0.04137 0.12337 0.18199  
 88N  
 0.23412  
     7        2        3        1        4        5        6  
 -0.02839 0.07484 0.04416 0.18010 0.02130-0.01045-0.02009  
 91A  
 0.63404  
     1        3        6        4        2        5        7  
 0.27726 0.14745-0.01106 0.13815 0.27416 0.09621-0.16221  
 91D  
 0.33706  
     7        4        5        1        6        2        3  
 -0.02738 0.01947-0.00990 0.29375-0.02169 0.07101 0.05059  
 91E  
 0.47320  
     6        2        5        3        7        4        1  
 -0.06065 0.17675-0.04292 0.16782-0.13404 0.13101 0.29324  
 91F  
 0.56896  
     3        1        4        2        7        5        6  
 0.15090 0.33732 0.03841 0.20577-0.03699 0.00768-0.02704

91G  
 0.53882  
     4      1      6      2      3      5      7  
     0.08577 0.22050 0.06097 0.11945 0.10041 0.07175 0.05055  
 91K  
 0.62247  
     6      1      3      2      7      5      4  
     0.03423 0.39318 0.07505 0.12234 0.02528 0.06604 0.07008  
 91M  
 0.54836  
     7      2      5      3      4      1      6  
     0.05153 0.13110 0.09003 0.12139 0.10134 0.16915 0.07025  
 91P  
 0.52688  
     4      1      6      5      7      2      3  
     0.12942 0.27389-0.05286 0.03413-0.18650 0.21410 0.18545  
 91Q  
 0.47111  
     7      2      6      5      3      4      1  
     -0.07124 0.12609-0.04524 0.08903 0.11841 0.09898 0.26800  
 91R  
 0.50392  
     7      1      5      2      4      6      3  
     -0.01903 0.25311 0.03895 0.17891 0.08967-0.00461 0.09192  
 91S  
 0.58408  
     7      2      1      6      4      5      3  
     0.05501 0.17852 0.18037 0.06380 0.10051 0.06395 0.14627  
 91T  
 0.55835  
     2      1      7      5      3      6      4  
     0.21933 0.29074-0.07697 0.06714 0.09566-0.01245 0.07107  
 91Z  
 0.43704  
     6      4      3      1      2      5      7  
     0.01233 0.05758 0.12485 0.21807 0.15990 0.04460-0.05640  
 92A  
 0.40815  
     6      1      4      2      7      5      3  
     -0.03005 0.19748 0.04596 0.16260-0.04244 0.02050 0.15465  
 92G  
 0.45680  
     4      6      3      1      7      5      2  
     0.05739-0.07309 0.10982 0.26618-0.11363 0.05724 0.25701  
 92M  
 0.71167  
     6      3      7      2      5      4      1  
     -0.03920 0.23277-0.07111 0.23561 0.10661 0.11938 0.30068  
 92R  
 0.53362  
     7      5      4      2      3      6      1  
     -0.01039 0.09517 0.11330 0.14258 0.13427 0.02592 0.21666  
 92Y  
 0.39846  
     5      3      4      1      6      2      7  
     0.01280 0.14956 0.01761 0.21206-0.02388 0.17182-0.06221

93C

0.69345

7 4 5 3 2 6 1  
-0.08314 0.15318 0.03664 0.21980 0.24437 0.00212 0.31661

93P

0.69424

6 5 3 1 2 7 4  
-0.02558 0.10499 0.21874 0.28466 0.23833-0.12238 0.21870

95B

0.59037

7 3 1 5 4 6 2  
-0.10057 0.16360 0.30572 0.04317 0.07347 0.04214 0.25135

95C

0.65735

3 6 5 2 7 4 1  
0.09022 0.04057 0.05006 0.13658 0.03741 0.06801 0.40202

96B

0.67005

7 2 4 1 5 6 3  
-0.03742 0.24123 0.13352 0.25604 0.10386-0.01357 0.20058

96D

0.31748

3 1 6 5 2 7 4  
0.07971 0.12643 0.03378 0.05279 0.08018-0.01611 0.05373

96R

0.42256

7 2 3 1 6 5 4  
-0.00257 0.11252 0.10508 0.19986 0.01930 0.04989 0.08680

97B

0.66696

7 5 3 2 4 6 1  
-0.20171 0.11345 0.16653 0.26387 0.15185 0.01464 0.36808

98C

0.55776

3 2 4 1 5 6 7  
0.19797 0.25468 0.11451 0.26609 0.02036-0.06160-0.12761

98G

0.55046

5 1 6 2 3 7 4  
0.09649 0.15637 0.05627 0.14586 0.14168 0.01214 0.11699

98H

0.47743

1 4 3 2 5 6 7  
0.28399 0.02621 0.18147 0.22405 0.00435-0.03130-0.08345

98Z

0.51965

3 5 2 1 6 4 7  
0.22121 0.06076 0.23311 0.24984-0.10169 0.19051-0.24007



**Table A.2**  
**Biased 7-Test Composite Validities and ASVAB Test Betas for 150 Job Families (Corrected)**  
**(Sample A)**

GS	AR	AS	MK	MC	EI	VE
11B						
0.34121	4	6	5	1	7	3
	2					
0.04777	0.03028	0.04630	0.15084	0.02704	0.04790	0.10527
11C						
0.43348	7	5	4	1	6	3
	2					
0.00158	0.07001	0.07121	0.17711	0.01576	0.10832	0.14110
11H						
0.48823	5	6	3	1	7	4
	2					
0.06604	0.04635	0.08543	0.25938	0.01514	0.06720	0.11276
11M						
0.36091	6	4	2	1	7	5
	3					
0.05136	0.05528	0.08146	0.12019	0.04947	0.05325	0.08076
12B						
0.46067	3	6	7	1	4	5
	2					
0.10244	0.03058	0.01557	0.20362	0.07128	0.05471	0.12010
12C						
0.51926	4	7	6	1	2	5
	3					
0.07598-0.01121	0.03539	0.22078	0.15978	0.06407	0.13417	
12F						
0.50486	7	5	1	3	6	4
	2					
-0.14202	0.00065	0.28626	0.21854-0.00951	0.07409	0.24921	
13B						
0.51509	6	3	1	5	2	7
	4					
0.02844	0.13484	0.19742	0.06260	0.15092-0.01034	0.12391	
13C						
0.56374	7	3	2	1	5	6
	4					
-0.22329	0.13787	0.27037	0.29719	0.08457	0.03511	0.13174
13E						
0.60279	6	4	5	1	7	3
	2					
0.01085	0.14248	0.13556	0.24736-0.11209	0.16292	0.21705	
13F						
0.47395	2	4	3	6	7	5
	1					
0.12603	0.12383	0.12520	0.07415-0.16222	0.12240	0.19222	
13M						
0.38655	5	3	7	2	6	1
	4					
-0.01931	0.16871-0.12699	0.19983-0.07223	0.20406	0.02391		

13N

0.41439  
5 1 6 2 7 4 3  
0.03433 0.21114 0.00675 0.17326-0.07725 0.05340 0.09550

13R

0.34208  
3 2 6 4 1 5 7  
0.10579 0.12472-0.03055 0.05688 0.19883 0.00321-0.06771

14D

0.55156  
2 1 3 5 7 4 6  
0.15874 0.46806 0.15322 0.02704-0.14865 0.06146-0.08635

15E

0.64779  
2 1 5 3 7 4 6  
0.27693 0.43409-0.01422 0.17724-0.21428 0.06125-0.02080

16E

0.45456  
5 2 4 1 7 3 6  
-0.01569 0.16983 0.14308 0.26342-0.10363 0.15030-0.03738

16P

0.52870  
4 1 5 3 7 2 6  
0.08095 0.40000 0.02184 0.08456-0.08317 0.12883-0.01292

16R

0.60741  
5 1 2 3 4 6 7  
0.08381 0.28825 0.16658 0.10036 0.08522 0.08080-0.00312

16S

0.54716  
6 5 4 2 7 3 1  
0.07855 0.07909 0.09420 0.14066 0.01812 0.13079 0.19209

19D

0.51408  
5 7 4 1 6 3 2  
0.07024-0.00313 0.10674 0.19390 0.02559 0.11989 0.17589

19E

0.58055  
6 3 5 2 7 4 1  
0.09387 0.11136 0.09957 0.14264 0.05177 0.11012 0.17294

19K

0.22302  
7 6 5 2 3 1 4  
-0.16113 0.02321 0.03885 0.08301 0.07602 0.13955 0.04642

24Z

0.61008  
7 2 3 4 6 1 5  
-0.16372 0.23064 0.16687 0.11708-0.04082 0.41380 0.01966

25M

0.33206  
7 3 6 5 2 4 1  
-0.23359 0.11029-0.05191 0.03678 0.17268 0.06825 0.23942

25S

0.38978  
6 5 2 4 3 7 1  
-0.00739 0.02432 0.14635 0.07680 0.07904-0.12882 0.28569

27E  
 0.42083  
     4        3        6        1        7        2        5  
     0.03514 0.05197-0.02158 0.28905-0.10772 0.22042 0.01452  
 27Z  
 0.52431  
     7        5        2        3        1        6        4  
     -0.08686-0.00202 0.21478 0.19543 0.22304-0.03712 0.18189  
 29V  
 0.54017  
     7        5        1        4        3        6        2  
     -0.22091 0.07557 0.33759 0.10189 0.20273-0.03689 0.20499  
 31C  
 0.30511  
     4        6        1        3        2        7        5  
     0.05513-0.03422 0.20715 0.11212 0.12596-0.12918 0.03090  
 31K  
 0.25679  
     7        6        3        2        4        1        5  
     -0.18011-0.15203 0.11171 0.17628 0.04798 0.18170 0.02495  
 31L  
 0.41660  
     7        5        2        3        1        4        6  
     -0.13304 0.09087 0.15624 0.12647 0.17811 0.09687-0.00096  
 31N  
 0.45763  
     7        4        2        5        3        6        1  
     -0.11288 0.10904 0.18510 0.10712 0.11043-0.00488 0.21581  
 31P  
 0.20234  
     7        4        2        3        5        6        1  
     -0.14779 0.01332 0.11062 0.08972-0.01941-0.08837 0.22130  
 31Q  
 0.41406  
     7        5        1        3        4        6        2  
     -0.11177 0.04349 0.22473 0.17091 0.04724 0.00798 0.17740  
 31R  
 0.37854  
     5        2        1        4        7        6        3  
     -0.06336 0.18906 0.20268 0.13848-0.09787-0.06399 0.17198  
 31S  
 0.19002  
     6        3        5        2        7        4        1  
     -0.05174 0.03705-0.04027 0.08139-0.07929-0.03847 0.18812  
 31V  
 0.30072  
     7        6        3        2        4        5        1  
     -0.11144-0.07419 0.12138 0.21195 0.02559-0.04773 0.23276  
 35E  
 0.45826  
     7        3        4        6        2        5        1  
     -0.21792 0.16439 0.04274-0.08679 0.17506-0.04342 0.43337  
 35H  
 0.43614  
     5        6        1        4        2        7        3  
     -0.01795-0.02940 0.35916 0.04523 0.14605-0.12291 0.11569

35J  
 0.51639  
     6        1        4        5        3        7        2  
     -0.11761 0.38410 0.07105-0.02326 0.13181-0.16390 0.27086  
 35N  
 0.53820  
     7        4        3        5        1        6        2  
     -0.14345 0.12226 0.19852 0.07266 0.25014-0.04393 0.22767  
 36M  
 0.58369  
     7        1        6        3        5        4        2  
     -0.16421 0.23678-0.06442 0.17481 0.15992 0.17462 0.19285  
 41C  
 0.71407  
     7        4        3        5        2        6        1  
     -0.25464 0.09799 0.20155 0.08476 0.33268-0.09608 0.49799  
 44B  
 0.44160  
     6        1        5        3        2        7        4  
     -0.00725 0.23171 0.06983 0.10395 0.20449-0.18293 0.07589  
 44E  
 0.43209  
     2        1        4        3        7        6        5  
     0.13672 0.24821 0.05854 0.10228-0.03572 0.00362 0.02736  
 45B  
 0.46876  
     7        1        5        4        3        6        2  
     -0.25011 0.31728 0.03930 0.06576 0.10520-0.01292 0.24729  
 45D  
 0.35722  
     5        3        4        6        1        7        2  
     -0.01460 0.11981-0.00136-0.02781 0.29706-0.21922 0.16523  
 45E  
 0.55980  
     4        5        3        1        7        6        2  
     0.08320 0.06387 0.13847 0.28211-0.16917 0.05546 0.25954  
 45K  
 0.41547  
     2        1        4        7        3        6        5  
     0.09609 0.42221 0.05633-0.29099 0.06580-0.01970 0.03946  
 45L  
 0.34243  
     5        3        6        4        2        1        7  
     0.04303 0.14982-0.12849 0.05542 0.15360 0.19827-0.15001  
 45N  
 0.40429  
     7        3        2        4        1        5        6  
     -0.08487 0.11947 0.16572 0.10881 0.16857 0.02183 0.01316  
 45T  
 0.55725  
     4        1        2        6        3        5        7  
     0.06915 0.28560 0.22979-0.05967 0.21305 0.00175-0.07979  
 46Z  
 0.34849  
     7        1        5        6        3        2        4  
     -0.13800 0.18757-0.02075-0.09624 0.17443 0.18066 0.07499

51B  
 0.48612  
     7      5      2      1      3      6      4  
     -0.33727 0.07971 0.20921 0.28268 0.15964 0.06215 0.10556  
 51K  
 0.47049  
     7      5      1      2      6      3      4  
     -0.17220 0.05167 0.29532 0.22550-0.11127 0.16171 0.16132  
 51M  
 0.45912  
     7      1      6      5      3      2      4  
     -0.26261 0.32621-0.05429-0.02194 0.19813 0.22432 0.02243  
 51R  
 0.51529  
     7      1      6      3      2      5      4  
     -0.14816 0.31446-0.00065 0.10710 0.21601 0.04466 0.05189  
 51T  
 0.71601  
     6      1      2      4      5      3      7  
     -0.07932 0.42683 0.27189 0.09586-0.00202 0.26237-0.09873  
 52C  
 0.46023  
     7      1      5      3      4      6      2  
     -0.05524 0.26743-0.03721 0.11707 0.11622-0.04859 0.16237  
 52D  
 0.37206  
     6      4      5      2      1      7      3  
     -0.00128 0.09761 0.06775 0.13161 0.18726-0.18537 0.12890  
 54B  
 0.19002  
     4      5      2      3      1      6      7  
     0.00702-0.02171 0.09228 0.04239 0.16772-0.04897-0.10374  
 55B  
 0.70038  
     6      2      1      5      4      7      3  
     0.09213 0.19395 0.37781 0.09221 0.10315-0.02676 0.10389  
 55D  
 0.52461  
     6      1      2      4      3      7      5  
     -0.02041 0.26600 0.16069 0.10684 0.15576-0.02483 0.02716  
 55G  
 0.48015  
     7      2      3      5      1      4      6  
     -0.03424 0.08211 0.07752 0.06597 0.30435 0.06759 0.02681  
 57E  
 0.51316  
     7      5      4      3      1      6      2  
     -0.15877 0.09237 0.10662 0.11706 0.37496-0.10136 0.16514  
 62B  
 0.67919  
     7      2      1      5      3      6      4  
     0.00987 0.15956 0.40189 0.05530 0.11981 0.04316 0.09716  
 62E  
 0.36230  
     6      3      1      4      7      5      2  
     -0.04145 0.09941 0.22676 0.06487-0.11705 0.00367 0.22553

62F  
0.55637  
4 6 1 2 7 5 3  
0.12237 0.02509 0.27692 0.22096-0.18475 0.12169 0.15263

62J  
0.35463  
1 3 2 4 7 5 6  
0.21028 0.17253 0.17414 0.02012-0.13409 0.00162-0.01280

63B  
0.50248  
7 2 1 5 4 6 3  
-0.00698 0.20857 0.21529 0.01751 0.03704 0.01693 0.18028

63D  
0.50178  
3 2 1 6 4 7 5  
0.06378 0.27680 0.32837-0.02656 0.03809-0.07965 0.01639

63E  
0.44449  
2 3 1 6 4 5 7  
0.13651 0.10326 0.16867 0.05087 0.06629 0.05303 0.01113

63G  
0.36856  
7 3 2 4 6 5 1  
0.00312 0.10454 0.11379 0.02770 0.00370 0.02266 0.20854

63H  
0.31126  
6 2 1 5 7 4 3  
-0.01986 0.12555 0.12919 0.06274-0.06351 0.07060 0.11307

63J  
0.72819  
5 2 1 6 4 7 3  
0.04194 0.21038 0.41999 0.00328 0.14124-0.01680 0.14154

63N  
0.54114  
5 2 3 4 7 6 1  
0.06835 0.25553 0.20323 0.08921-0.14402-0.03567 0.25647

63S  
0.45758  
6 3 4 2 7 5 1  
-0.01667 0.15613 0.04453 0.20177-0.02482 0.00643 0.20947

63T  
0.52152  
7 1 5 3 2 6 4  
-0.10559 0.28316-0.05143 0.12966 0.27588-0.10217 0.12191

63W  
0.45330  
7 6 5 1 4 3 2  
-0.01271-0.00844 0.00861 0.33910 0.01944 0.06907 0.14033

63Y  
0.51770  
5 1 6 3 7 4 2  
0.05091 0.29908 0.00810 0.13762-0.09538 0.05237 0.17022

67N  
0.30019  
7 1 3 2 6 5 4  
-0.01206 0.14883 0.06115 0.10191 0.01229 0.01926 0.06043

67R  
 0.34149  
     6      1      5      4      7      2      3  
     -0.00882 0.18637 0.04308 0.06212-0.03395 0.10377 0.08879  
 67T  
 0.35444  
     7      3      5      4      2      6      1  
     -0.19383 0.07226-0.08847 0.06832 0.14689-0.08989 0.36437  
 67U  
 0.32712  
     4      2      6      1      5      7      3  
     0.03484 0.13288-0.04310 0.14365 0.01608-0.04804 0.12182  
 67V  
 0.45901  
     3      1      4      2      6      7      5  
     0.12995 0.25953 0.07775 0.20844-0.05107-0.09872-0.00103  
 67Y  
 0.51485  
     3      1      6      2      7      4      5  
     0.12136 0.27221 0.00825 0.18182-0.15612 0.09627 0.08591  
 68B  
 0.31563  
     5      6      3      1      7      2      4  
     -0.00796-0.01548 0.09255 0.22396-0.14820 0.14829 0.08921  
 68D  
 0.30910  
     7      6      3      2      4      5      1  
     -0.05151-0.03502 0.09685 0.18085-0.00288-0.00554 0.21099  
 68F  
 0.50917  
     7      5      2      3      6      4      1  
     -0.22092 0.10653 0.18657 0.15450 0.09006 0.11258 0.24157  
 68G  
 0.48667  
     7      4      2      3      5      6      1  
     -0.31042 0.15791 0.26777 0.18707 0.04155-0.01724 0.26968  
 68J  
 0.26687  
     7      2      6      5      3      1      4  
     0.00479 0.09368 0.00700 0.01009 0.08581 0.10341 0.03481  
 68M  
 0.34527  
     1      3      4      5      7      6      2  
     0.14778 0.09083 0.08975 0.07413-0.19081 0.04454 0.14386  
 68N  
 0.33339  
     7      1      5      3      4      6      2  
     -0.02695 0.17832-0.00160 0.08305 0.06568-0.01160 0.11850  
 68Z  
 0.49327  
     2      4      5      7      3      6      1  
     0.18635 0.09063 0.04651-0.04275 0.12722-0.01389 0.20442  
 71D  
 0.51327  
     3      5      4      1      6      2      7  
     0.09417 0.01418 0.05298 0.36086-0.00360 0.18155-0.06538

71G  
 0.38300  
     4        2        7        1        5        3        6  
     0.04826 0.09895-0.06404 0.26495 0.02260 0.07594-0.03282  
 71L  
 0.29715  
     7        3        5        2        4        6        1  
     -0.08270 0.10403 0.03487 0.12686 0.06736-0.03856 0.15093  
 71M  
 0.38290  
     5        3        6        1        7        2        4  
     -0.00192 0.11538-0.03605 0.25001-0.14217 0.21590 0.00214  
 72E  
 0.40648  
     7        2        5        4        6        3        1  
     -0.16836 0.17037 0.08269 0.14057-0.13945 0.16142 0.24138  
 72G  
 0.35854  
     7        3        6        1        2        5        4  
     -0.06006 0.10530 0.03603 0.13745 0.11308 0.04366 0.09091  
 73C  
 0.30495  
     3        1        5        6        7        4        2  
     0.07787 0.21678 0.00572 0.00338-0.07727 0.03647 0.09163  
 73D  
 0.22787  
     6        1        4        2        7        3        5  
     -0.00089 0.13618 0.00945 0.08285-0.01005 0.05012 0.00816  
 74B  
 0.35860  
     7        1        5        4        6        3        2  
     -0.08951 0.16776 0.05687 0.05702 0.02752 0.07865 0.16686  
 75B  
 0.26676  
     5        2        1        4        6        7        3  
     -0.00013 0.12091 0.19936 0.07762-0.01051-0.25320 0.10416  
 75C  
 0.28412  
     7        1        5        4        6        3        2  
     -0.05909 0.18375 0.00686 0.03216 0.00621 0.03646 0.13567  
 75D  
 0.49770  
     3        2        5        1        6        4        7  
     0.11755 0.16445 0.04135 0.19822 0.03703 0.08860-0.00148  
 75E  
 0.51773  
     3        5        2        7        1        4        6  
     0.09391 0.05971 0.17658 0.02447 0.20248 0.06940 0.03410  
 75F  
 0.59463  
     6        1        3        4        2        7        5  
     0.01200 0.28031 0.14487 0.12543 0.15202-0.00654 0.06984  
 76J  
 0.53827  
     5        3        2        6        1        4        7  
     0.08867 0.12966 0.16712 0.02294 0.17540 0.11262-0.00306



76P  
 0.40610  
     7        2        3        4        1        6        5  
     -0.13552 0.16044 0.11186 0.10741 0.24163-0.10515 0.08274  
 76V  
 0.48475  
     4        2        1        3        6        7        5  
     0.00151 0.29623 0.50340 0.12021-0.18052-0.23624-0.04913  
 76X  
 0.61603  
     7        3        2        1        6        5        4  
     -0.14650 0.27954 0.33914 0.37125-0.10882 0.00548 0.00984  
 77F  
 0.32817  
     7        4        1        3        2        6        5  
     -0.14290 0.10832 0.14527 0.12183 0.13522-0.03839 0.06932  
 77W  
 0.51443  
     7        2        1        5        4        3        6  
     -0.01784 0.21118 0.22473 0.05590 0.07157 0.10012 0.03328  
 81L  
 0.24763  
     7        2        3        4        6        5        1  
     -0.06664 0.18923 0.01698-0.01112-0.05167-0.01796 0.19016  
 82C  
 0.39415  
     7        1        2        4        6        3        5  
     -0.09702 0.20554 0.17850 0.08362-0.00697 0.11145 0.03058  
 88H  
 0.41862  
     1        2        6        3        7        4        5  
     0.25876 0.23237 0.00562 0.07533-0.13926 0.02018 0.01274  
 88M  
 0.31453  
     4        1        7        6        5        2        3  
     -0.01507 0.32199-0.14958-0.08509-0.08061 0.15217 0.08119  
 88N  
 0.23361  
     4        1        3        2        6        5        7  
     0.05794 0.13546 0.07423 0.11729-0.01899 0.00793-0.15013  
 91A  
 0.36020  
     2        3        4        5        6        1        7  
     0.15492 0.12077 0.10927 0.05466 0.02712 0.15928-0.26238  
 91D  
 0.24810  
     7        4        3        1        6        2        5  
     -0.07255 0.03044 0.04457 0.20464-0.03821 0.12176-0.00729  
 91E  
 0.40490  
     5        1        6        4        7        3        2  
     0.06983 0.23820-0.07221 0.09116-0.26687 0.14446 0.15543  
 91F  
 0.43809  
     3        1        4        2        7        5        6  
     0.08091 0.36348 0.07981 0.12946-0.14254 0.07260-0.13381

91G  
 0.46874  
     5        1        4        7        3        2        6  
     0.01627 0.26269 0.09627-0.09180 0.13250 0.15752-0.01279  
 91K  
 0.50644  
     5        1        3        4        6        2        7  
     -0.02731 0.45222 0.12472 0.04593-0.09318 0.14342-0.09579  
 91M  
 0.55922  
     7        2        3        5        4        1        6  
     -0.10965 0.21969 0.17456 0.06112 0.07982 0.29996-0.04422  
 91P  
 0.38763  
     6        1        5        3        7        2        4  
     -0.05271 0.24603 0.05317 0.11364-0.23759 0.20466 0.09278  
 91Q  
 0.32485  
     7        1        6        5        4        3        2  
     -0.08205 0.23524-0.01186 0.01299 0.03366 0.06968 0.12189  
 91R  
 0.39444  
     7        2        4        3        1        6        5  
     -0.00194 0.14754 0.07011 0.09964 0.16203 0.00774 0.02187  
 91S  
 0.57305  
     4        1        2        7        6        5        3  
     0.09428 0.30813 0.12431-0.01022 0.05506 0.06685 0.10880  
 91T  
 0.49508  
     3        1        7        4        2        6        5  
     0.19629 0.33591-0.16540-0.04873 0.29603-0.09042-0.07635  
 91Z  
 0.33830  
     5        3        6        1        2        4        7  
     0.00349 0.12492-0.00312 0.15437 0.13694 0.02020-0.03928  
 92A  
 0.25361  
     6        1        3        4        7        5        2  
     0.00025 0.11335 0.08180 0.05815-0.02574 0.01439 0.09694  
 92G  
 0.27438  
     6        5        2        1        7        4        3  
     0.01120 0.01884 0.15165 0.16406-0.18493 0.02460 0.13740  
 92M  
 0.60738  
     7        1        4        3        6        2        5  
     -0.15546 0.42866 0.04973 0.16736-0.00440 0.18754 0.03056  
 92R  
 0.35270  
     7        1        2        3        6        5        4  
     -0.12066 0.13915 0.13099 0.11871 0.00619 0.09274 0.09870  
 92Y  
 0.43355  
     6        1        2        4        7        3        5  
     -0.07913 0.39101 0.17185 0.10264-0.21425 0.10830-0.05418

93C  
 0.39755  
     7        2        4        1        3        6        5  
     -0.19493 0.12401 0.11249 0.21537 0.11939 0.04988 0.05192  
 93P  
 0.64856  
     6        3        1        2        4        5        7  
     0.03783 0.11536 0.40880 0.26225 0.06566 0.04975-0.09609  
 95B  
 0.49563  
     7        2        3        6        4        5        1  
     -0.08377 0.17802 0.15905 0.01162 0.03854 0.02714 0.30905  
 95C  
 0.28319  
     7        4        5        2        6        1        3  
     -0.06529 0.08103 0.00312 0.10196-0.00779 0.15344 0.09188  
 96B  
 0.28731  
     7        4        1        3        6        2        5  
     -0.06841 0.03026 0.18221 0.13036-0.06830 0.14975-0.00336  
 96D  
 0.14748  
     5        4        1        3        2        6        7  
     0.02538 0.02974 0.06651 0.04026 0.05135 0.01273-0.04368  
 96R  
 0.31973  
     6        3        2        1        7        4        5  
     -0.04691 0.11210 0.12847 0.18104-0.05177 0.07746 0.01491  
 97B  
 0.50432  
     7        5        2        1        6        3        4  
     -0.20988 0.09518 0.28729 0.36355-0.15598 0.13269 0.11262  
 98C  
 0.40222  
     6        2        3        1        5        7        4  
     -0.01038 0.20783 0.11135 0.22143 0.01099-0.17883 0.07014  
 98G  
 0.41127  
     6        5        2        3        4        7        1  
     -0.00707 0.05783 0.16636 0.13145 0.07557-0.11509 0.22640  
 98H  
 0.26125  
     3        4        1        2        6        5        7  
     0.10632 0.02614 0.17682 0.13020-0.05151 0.01825-0.08181  
 98Z  
 0.49784  
     1        4        5        3        6        2        7  
     0.29265 0.19642 0.01524 0.21555-0.16111 0.22007-0.28221

**Table A.3**

***Biased 7-Test Composite Validities and ASVAB Test Betas for the Youth Population (Corrected)***  
***(Sample A)***

	GS	AR	AS	MK	MC	EI	VE
11B							
0.50279							
	6	5	2	1	3	7	4
	0.05991	0.06737	0.11180	0.14307	0.09355	0.04618	0.07759
11C							
0.62496							
	7	2	1	4	5	6	3
	0.03867	0.15257	0.15443	0.11802	0.09692	0.06176	0.12158
11H							
0.61321							
	5	4	2	1	3	6	7
	0.08334	0.09350	0.18758	0.21822	0.10055	0.02871	0.01935
11M							
0.52755							
	6	2	1	4	3	7	5
	0.05899	0.12133	0.14763	0.09085	0.10038	0.03204	0.07646
12B							
0.61201							
	6	4	5	1	2	7	3
	0.06940	0.08656	0.07758	0.18585	0.12485	0.05459	0.12376
12C							
0.66002							
	6	4	3	1	2	7	5
	0.05730	0.10665	0.13047	0.18161	0.16955	0.04306	0.09536
12F							
0.73121							
	7	5	1	3	4	6	2
	-0.17874	0.09930	0.37004	0.21306	0.10170	0.00751	0.26416
13B							
0.52952							
	7	3	4	2	1	5	6
	0.01170	0.12516	0.09924	0.14434	0.19907	0.02383	0.01580
13C							
0.77415							
	5	7	3	4	2	6	1
	0.04947	0.03436	0.17428	0.16844	0.18766	0.04190	0.26587
13E							
0.76998							
	7	1	5	3	6	4	2
	-0.01033	0.31147	0.04071	0.18945	0.00284	0.08650	0.25065
13F							
0.64945							
	5	1	4	3	7	6	2
	0.09073	0.21034	0.10637	0.12707	0.00402	0.05076	0.16748
13M							
0.56409							
	6	4	7	2	5	3	1
	-0.00867	0.13335	-0.05710	0.17165	0.06200	0.15950	0.17272

13N  
 0.63193  
     7      3      4      1      6      5      2  
     0.01988 0.13305 0.09759 0.20586 0.03906 0.07314 0.17480  
 13R  
 0.71159  
     6      3      2      5      4      7      1  
     0.00862 0.17312 0.18216 0.04904 0.12424 0.00096 0.30037  
 14D  
 0.80565  
     3      1      2      5      6      7      4  
     0.14350 0.43693 0.31520-0.00415-0.01869-0.07554 0.13329  
 15E  
 0.73057  
     2      1      4      3      7      6      5  
     0.25847 0.31945 0.11302 0.13000-0.04547 0.02481 0.02969  
 16E  
 0.72323  
     7      4      1      2      3      6      5  
     0.00009 0.10508 0.31479 0.22096 0.10605 0.04340 0.07843  
 16P  
 0.62332  
     6      1      3      4      5      2      7  
     0.02580 0.29384 0.14974 0.13317 0.10662 0.15807-0.16646  
 16R  
 0.65137  
     6      1      2      3      4      7      5  
     0.06402 0.21514 0.17151 0.09827 0.09414 0.04347 0.08424  
 16S  
 0.66082  
     7      1      3      6      5      4      2  
     0.02837 0.17094 0.15270 0.05530 0.09653 0.11287 0.16481  
 19D  
 0.66720  
     7      6      3      2      4      5      1  
     0.06740 0.07750 0.13464 0.14263 0.11405 0.10316 0.15449  
 19E  
 0.72120  
     3      1      2      6      5      4      7  
     0.10826 0.20292 0.17474 0.08953 0.10129 0.10252 0.07216  
 19K  
 0.54520  
     7      3      5      2      4      1      6  
     -0.12665 0.12844 0.07150 0.14879 0.08835 0.27875 0.03672  
 24Z  
 0.82239  
     6      7      4      2      5      3      1  
     0.05258-0.01198 0.13702 0.17839 0.07603 0.15001 0.38248  
 25M  
 0.59823  
     7      2      6      5      4      3      1  
     -0.11288 0.19910-0.09140 0.05511 0.16053 0.16234 0.28613  
 25S  
 0.74401  
     6      5      3      4      2      7      1  
     0.06144 0.09178 0.12475 0.11038 0.14219-0.07368 0.40317

27E  
 0.69871  
     7        3        5        1        6        4        2  
     0.02343 0.14342 0.11717 0.19208 0.06917 0.12222 0.15998  
 27Z  
 0.67208  
     5        6        3        1        2        7        4  
     0.09130 0.08194 0.12791 0.17164 0.13280 0.08155 0.11175  
 29V  
 0.64419  
     7        3        1        2        6        5        4  
     -0.01326 0.13845 0.16517 0.14379 0.09227 0.12086 0.12119  
 31C  
 0.74006  
     4        5        6        1        2        7        3  
     0.13333 0.12051 0.08715 0.20698 0.15131 0.02777 0.14212  
 31K  
 0.38714  
     7        6        3        1        5        2        4  
     -0.17862-0.15132 0.11985 0.29588-0.01203 0.26884 0.08030  
 31L  
 0.63521  
     7        2        5        3        4        1        6  
     -0.03249 0.19702 0.09590 0.15167 0.12425 0.22661-0.02869  
 31N  
 0.73539  
     6        1        4        5        7        3        2  
     0.08606 0.20781 0.11825 0.10227 0.03862 0.14104 0.16890  
 31P  
 0.82727  
     7        3        4        2        6        5        1  
     -0.03043 0.15666 0.06680 0.30240 0.00232 0.02519 0.41140  
 31Q  
 0.68831  
     7        4        3        1        6        5        2  
     0.00803 0.14203 0.16822 0.18280 0.03395 0.11398 0.17118  
 31R  
 0.75762  
     5        1        4        3        7        6        2  
     -0.00662 0.35463 0.20226 0.20911-0.09471-0.03436 0.23416  
 31S  
 0.71206  
     5        2        6        3        7        4        1  
     0.06718 0.32084-0.01097 0.13231-0.21257 0.07379 0.35899  
 31V  
 0.81430  
     5        4        6        1        7        3        2  
     0.10728 0.13590 0.06510 0.27023-0.02267 0.13622 0.24666  
 35E  
 0.77289  
     7        2        6        5        4        3        1  
     -0.06249 0.22182-0.02498 0.04272 0.07539 0.09631 0.50155  
 35H  
 0.66623  
     3        4        1        2        6        5        7  
     0.09626 0.08716 0.27700 0.16521 0.07157 0.07513 0.02160

35J  
 0.67099  
     5        2        1        3        6        7        4  
     0.11087 0.19254 0.20893 0.19152-0.01278-0.02647 0.12787  
 35N  
 0.75282  
     5        7        2        3        4        6        1  
     0.06884 0.00619 0.22867 0.19346 0.11696 0.02511 0.26182  
 36M  
 0.87482  
     7        3        2        1        4        5        6  
     0.07833 0.14326 0.14559 0.27469 0.13991 0.12793 0.12770  
 41C  
 0.75927  
     6        5        2        4        3        7        1  
     -0.02957 0.02900 0.25807 0.08501 0.24491-0.06388 0.37116  
 44B  
 0.74987  
     3        7        2        1        6        4        5  
     0.16621 0.04203 0.20269 0.27389 0.04340 0.11819 0.04525  
 44E  
 0.50279  
     2        1        4        3        6        5        7  
     0.13934 0.18036 0.11508 0.13830 0.06249 0.07879-0.14249  
 45B  
 0.74547  
     7        2        3        4        6        5        1  
     -0.03013 0.24779 0.15469 0.14049 0.03175 0.06001 0.26973  
 45D  
 0.62454  
     5        4        6        3        1        7        2  
     0.06355 0.07034 0.02670 0.11281 0.26635-0.07098 0.24726  
 45E  
 0.79736  
     6        7        3        1        5        4        2  
     -0.02326-0.04736 0.21318 0.29392 0.11051 0.14195 0.26722  
 45K  
 0.60795  
     2        1        3        7        6        4        5  
     0.21037 0.45835 0.16491-0.26721-0.08588 0.10350 0.05560  
 45L  
 0.69044  
     3        4        7        2        6        5        1  
     0.14792 0.12644-0.14321 0.18333 0.11160 0.11766 0.20825  
 45N  
 0.64495  
     6        5        1        2        4        3        7  
     0.06019 0.06040 0.21337 0.18419 0.13333 0.15434-0.04827  
 45T  
 0.75861  
     1        5        3        6        4        2        7  
     0.29262 0.11017 0.15869 0.09879 0.11366 0.23330-0.14885  
 46Z  
 0.55306  
     7        4        3        5        2        1        6  
     -0.08463 0.08361 0.11514 0.02659 0.11941 0.36187-0.01732

51B  
 0.68157  
     7        2        4        1        5        3        6  
 -0.13844 0.24959 0.15320 0.30342 0.04181 0.21184-0.04161  
 51K  
 0.73502  
     7        6        2        4        5        3        1  
 -0.12652-0.09173 0.26470 0.20468-0.02282 0.20685 0.42474  
 51M  
 0.77623  
     7        1        4        5        6        2        3  
 0.01802 0.33130 0.05575 0.05157 0.04466 0.32399 0.06004  
 51R  
 0.81663  
     6        1        4        3        5        2        7  
 0.07387 0.23009 0.18201 0.18553 0.12552 0.18778-0.02628  
 51T  
 0.81284  
     3        1        2        5        4        6        7  
 0.13892 0.25687 0.21782 0.10416 0.11229 0.08915 0.03830  
 52C  
 0.69297  
     4        1        5        3        7        6        2  
 0.13530 0.19207 0.10049 0.17213-0.04114 0.06386 0.17819  
 52D  
 0.79267  
     2        3        1        5        4        7        6  
 0.22285 0.17060 0.25174 0.10940 0.15174-0.06006 0.08805  
 54B  
 0.29950  
     4        6        2        3        1        5        7  
 0.05935-0.05876 0.14363 0.11614 0.15678 0.03590-0.15754  
 55B  
 0.81871  
     7        3        1        2        4        5        6  
 0.04978 0.13610 0.33498 0.15930 0.12127 0.09577 0.07930  
 55D  
 0.68725  
     4        1        2        3        5        6        7  
 0.10402 0.25177 0.23639 0.12226 0.10277 0.08359-0.10343  
 55G  
 0.70709  
     1        5        3        4        2        6        7  
 0.25943 0.09558 0.15636 0.10968 0.16355 0.08381-0.04926  
 57E  
 0.70200  
     6        7        3        1        2        5        4  
 0.03212-0.00240 0.18103 0.22832 0.22150 0.05494 0.12306  
 62B  
 0.78548  
     6        4        1        5        2        3        7  
 0.05701 0.10704 0.38178 0.09681 0.18333 0.13807-0.06328  
 62E  
 0.80187  
     7        4        1        5        6        3        2  
 -0.02917 0.08733 0.43910 0.05741 0.04327 0.10915 0.23640



62F  
0.80763  
5 6 1 3 7 2 4  
0.05888 0.01102 0.41903 0.19122-0.02047 0.19378 0.10088

62J  
0.62600  
2 3 1 5 6 4 7  
0.19727 0.18620 0.26002 0.03442 0.01902 0.11491-0.09624

63B  
0.64050  
7 2 3 5 6 4 1  
-0.04134 0.16681 0.16019 0.06239 0.05488 0.09335 0.26004

63D  
0.70054  
7 2 1 6 3 5 4  
-0.04150 0.23462 0.30867-0.00432 0.15821 0.06149 0.09860

63E  
0.80450  
3 4 1 5 2 6 7  
0.15545 0.08347 0.45182 0.07976 0.16624 0.04670-0.06678

63G  
0.80901  
7 5 1 6 3 4 2  
-0.04387 0.06240 0.34728 0.04994 0.19455 0.13985 0.19819

63H  
0.74630  
7 4 1 6 3 2 5  
0.00045 0.12078 0.33392 0.03275 0.12101 0.17662 0.08253

63J  
0.81591  
5 3 1 7 2 4 6  
0.04554 0.14641 0.37832 0.02192 0.18219 0.13314 0.03392

63N  
0.83417  
7 2 1 5 4 6 3  
-0.01362 0.21533 0.40525 0.05617 0.07683 0.05301 0.19613

63S  
0.82185  
7 5 2 3 4 6 1  
-0.03806 0.13734 0.19865 0.18214 0.13868 0.04956 0.31076

63T  
0.79047  
7 3 4 5 1 6 2  
-0.18819 0.32719 0.02148-0.03284 0.48022-0.13214 0.38038

63W  
0.72773  
7 6 4 1 2 3 5  
-0.00651 0.02544 0.13447 0.25486 0.17694 0.16107 0.12028

63Y  
0.82224  
6 1 3 4 7 5 2  
0.09774 0.23730 0.14284 0.13990 0.06649 0.10579 0.17774

67N  
0.64016  
7 2 3 5 1 4 6  
0.01010 0.18012 0.16197 0.05786 0.18780 0.12238 0.02701

67R  
 0.73749  
     7        2        1        6        5        3        4  
     -0.00820 0.20619 0.23162 0.01062 0.11435 0.18218 0.12767  
 67T  
 0.71338  
     7        3        5        4        2        6        1  
     -0.20625 0.12104-0.05135 0.02268 0.24489-0.06842 0.67087  
 67U  
 0.65012  
     5        1        7        4        3        6        2  
     0.06969 0.21716-0.01574 0.12712 0.14902 0.00875 0.18081  
 67V  
 0.78217  
     5        2        3        1        6        7        4  
     0.08864 0.24437 0.17411 0.26092 0.05796-0.01274 0.10450  
 67Y  
 0.78307  
     4        1        5        2        7        3        6  
     0.12573 0.23659 0.12099 0.21714 0.01558 0.13790 0.06090  
 68B  
 0.67001  
     4        6        5        1        7        2        3  
     0.11515 0.04843 0.07655 0.22815-0.06382 0.22160 0.14875  
 68D  
 0.61567  
     5        7        3        2        6        4        1  
     0.05248-0.09428 0.14152 0.23508-0.04235 0.12527 0.29780  
 68F  
 0.78816  
     6        2        5        3        7        4        1  
     0.05773 0.20313 0.06830 0.15865-0.02827 0.14367 0.30220  
 68G  
 0.79755  
     7        1        4        3        5        6        2  
     -0.05770 0.32906 0.09811 0.19681 0.00811 0.00769 0.32214  
 68J  
 0.79944  
     7        2        6        3        5        4        1  
     -0.04103 0.24166-0.01944 0.19051 0.04586 0.06467 0.40412  
 68M  
 0.79406  
     4        2        6        3        7        5        1  
     0.05383 0.24718 0.02855 0.22438-0.15947 0.03122 0.42117  
 68N  
 0.72807  
     6        2        7        3        4        5        1  
     -0.03959 0.25865-0.05069 0.23118 0.00115-0.02258 0.38650  
 68Z  
 0.75567  
     4        2        5        3        6        7        1  
     0.12954 0.16730 0.04257 0.13228 0.02023-0.12331 0.45312  
 71D  
 0.61763  
     6        4        7        1        3        2        5  
     0.05956 0.06027 0.05409 0.25431 0.08541 0.15056 0.05962

71G  
 0.55435  
     6        1        7        2        4        5        3  
     -0.02456 0.21405-0.04595 0.20094 0.08697 0.05908 0.11985  
 71L  
 0.66179  
     7        3        4        2        5        6        1  
     -0.06869 0.21511-0.00440 0.26359-0.00618-0.04520 0.34666  
 71M  
 0.72344  
     4        3        7        1        6        5        2  
     0.09083 0.19615-0.07265 0.32860-0.04741 0.05239 0.21805  
 72E  
 0.78777  
     7        3        4        2        6        5        1  
     -0.07889 0.12981 0.03953 0.18118-0.01636 0.03779 0.56814  
 72G  
 0.74262  
     7        3        6        2        4        5        1  
     -0.06895 0.26163-0.01074 0.27539 0.06562 0.00521 0.28797  
 73C  
 0.72506  
     4        2        6        3        7        5        1  
     0.04513 0.30725-0.02387 0.17974-0.05885 0.00401 0.31926  
 73D  
 0.68351  
     6        1        5        3        7        4        2  
     -0.02935 0.29207-0.00095 0.22338-0.04831 0.05998 0.24695  
 74B  
 0.82186  
     7        2        5        3        6        4        1  
     -0.10131 0.26866 0.01828 0.25574 0.00023 0.06946 0.39965  
 75B  
 0.67899  
     6        2        4        3        5        7        1  
     -0.03710 0.27327 0.11632 0.22397-0.00626-0.20362 0.36129  
 75C  
 0.75689  
     7        2        4        3        5        6        1  
     -0.03749 0.32005 0.00261 0.23031-0.01177-0.02294 0.33539  
 75D  
 0.72547  
     5        1        7        3        6        4        2  
     0.06472 0.29002-0.06831 0.19285-0.03013 0.06724 0.26127  
 75E  
 0.63542  
     5        1        4        6        2        7        3  
     0.09427 0.17037 0.09820 0.07571 0.11838 0.07402 0.11584  
 75F  
 0.82612  
     6        2        5        3        7        4        1  
     -0.00704 0.37032 0.00285 0.10875-0.01289 0.01933 0.41867  
 76J  
 0.70597  
     7        1        2        4        3        5        6  
     0.03794 0.17149 0.16257 0.14068 0.15108 0.09427 0.07941

76P  
 0.63371  
     6      5      2      1      4      7      3  
     0.00718 0.12180 0.16188 0.19027 0.13601-0.02182 0.15966  
 76V  
 0.42683  
     4      3      1      2      5      7      6  
     0.03321 0.14822 0.49811 0.19992-0.04631-0.36127-0.06982  
 76X  
 0.77122  
     4      3      2      1      5      7      6  
     0.10936 0.17253 0.20435 0.33177 0.07394-0.04851 0.06470  
 77F  
 0.56123  
     7      5      2      1      6      4      3  
     0.03030 0.04176 0.20754 0.23346 0.03688 0.04451 0.08151  
 77W  
 0.63391  
     7      2      1      6      5      3      4  
     -0.03414 0.18130 0.22992 0.08219 0.09424 0.10176 0.09736  
 81L  
 0.53768  
     7      2      5      3      6      4      1  
     -0.03439 0.20836-0.01105 0.15149-0.01494-0.00733 0.28176  
 82C  
 0.63383  
     7      4      2      3      5      6      1  
     0.01303 0.12247 0.13458 0.12713 0.11823 0.05638 0.18237  
 88H  
 0.76910  
     1      4      7      2      5      6      3  
     0.40932 0.08116-0.05516 0.16960 0.05104 0.03269 0.15303  
 88M  
 0.57885  
     4      2      7      6      5      3      1  
     0.05005 0.21979-0.19966 0.02759 0.04734 0.12544 0.30762  
 88N  
 0.27060  
     6      2      3      1      4      5      7  
     -0.03855 0.08791 0.03854 0.23385 0.02858-0.01142-0.06622  
 91A  
 0.75768  
     1      3      6      4      2      5      7  
     0.30547 0.21151 0.01455 0.13596 0.26164 0.09588-0.18340  
 91D  
 0.48015  
     7      4      5      1      6      3      2  
     -0.02355 0.02713-0.01118 0.35475-0.02254 0.07456 0.11647  
 91E  
 0.71694  
     5      2      6      3      7      4      1  
     -0.03765 0.18716-0.04702 0.17939-0.11768 0.11077 0.46946  
 91F  
 0.75705  
     3      1      5      2      7      6      4  
     0.17542 0.39682 0.04482 0.20856-0.03623-0.00197 0.04642

91G  
 0.72897  
     4      1      7      3      5      6      2  
     0.10713 0.26083 0.05876 0.12716 0.09681 0.06227 0.13069  
 91K  
 0.74940  
     6      1      5      2      7      3      4  
     0.03628 0.44556 0.05656 0.13900 0.03017 0.06853 0.06326  
 91M  
 0.69631  
     7      2      6      3      5      1      4  
     0.05890 0.15642 0.08553 0.13498 0.10374 0.17495 0.10416  
 91P  
 0.68025  
     4      1      6      5      7      3      2  
     0.14327 0.31077-0.06557 0.04317-0.18547 0.22443 0.23756  
 91Q  
 0.64537  
     7      2      6      4      3      5      1  
     -0.08000 0.13310-0.05830 0.10589 0.12610 0.10272 0.38563  
 91R  
 0.67649  
     7      1      5      2      4      6      3  
     -0.01373 0.30100 0.03354 0.19996 0.09265-0.00846 0.15634  
 91S  
 0.75661  
     6      2      3      5      4      7      1  
     0.06411 0.20745 0.16609 0.06679 0.09585 0.05931 0.23298  
 91T  
 0.75101  
     2      1      7      5      4      6      3  
     0.24632 0.33392-0.06625 0.07168 0.09048-0.02009 0.16122  
 91Z  
 0.59091  
     6      4      3      1      2      5      7  
     0.03372 0.08488 0.13084 0.25334 0.16937 0.03823-0.01507  
 92A  
 0.61615  
     6      2      4      3      7      5      1  
     -0.02708 0.24338 0.04517 0.18218-0.04266 0.01767 0.26372  
 92G  
 0.70173  
     4      6      3      2      7      5      1  
     0.08110-0.06945 0.10363 0.27544-0.10635 0.04431 0.44608  
 92M  
 0.86639  
     6      2      7      3      5      4      1  
     -0.02725 0.23297-0.05883 0.21809 0.09107 0.09717 0.40862  
 92R  
 0.71803  
     7      4      5      2      3      6      1  
     -0.00759 0.10936 0.10390 0.15269 0.13182 0.02389 0.32787  
 92Y  
 0.59887  
     5      2      4      1      7      3      6  
     0.03021 0.22450 0.04199 0.22835-0.03129 0.17028 0.01494

93C  
 0.85888  
     7      4      5      3      2      6      1  
 -0.05795 0.15303 0.02660 0.20445 0.20550-0.00772 0.45490  
 93P  
 0.85288  
     6      5      4      2      3      7      1  
 -0.00966 0.12355 0.18652 0.26335 0.20162-0.11370 0.35101  
 95B  
 0.77806  
     7      3      2      5      4      6      1  
 -0.08483 0.18171 0.26595 0.04849 0.06947 0.03022 0.40478  
 95C  
 0.81633  
     3      7      5      2      6      4      1  
 0.08716 0.03189 0.03616 0.13654 0.03592 0.06516 0.51923  
 96B  
 0.83344  
     7      2      4      3      5      6      1  
 -0.02736 0.25670 0.11269 0.24687 0.09218-0.01688 0.29933  
 96D  
 0.48391  
     3      1      6      5      4      7      2  
 0.10762 0.16395 0.03285 0.06660 0.08946-0.02292 0.11695  
 96R  
 0.61971  
     7      3      4      1      6      5      2  
 0.00599 0.14754 0.10780 0.22248 0.01904 0.04738 0.17600  
 97B  
 0.83977  
     7      5      4      2      3      6      1  
 -0.17444 0.10893 0.12818 0.25221 0.13361 0.00411 0.51495  
 98C  
 0.70100  
     3      1      4      2      5      6      7  
 0.24205 0.30738 0.10790 0.29596 0.02318-0.07270-0.13101  
 98G  
 0.74381  
     5      2      6      3      4      7      1  
 0.11405 0.18362 0.05781 0.15403 0.13232 0.00581 0.21489  
 98H  
 0.52512  
     1      5      3      2      4      6      7  
 0.36210-0.00942 0.16984 0.28836 0.01326-0.03640-0.21534  
 98Z  
 0.58228  
     2      5      3      1      6      4      7  
 0.28407 0.07115 0.24726 0.30371-0.12212 0.21530-0.40689

## APPENDIX B

[A note on interpreting the Appendix tables --- There are four lines of output for each job family: the first line identifies the job family and the second line presents the estimated composite validity coefficient; the fourth line presents the estimated beta coefficients for each ASVAB subtest, while the third line indicates the order (from high to low) of the estimated coefficients.]

**Table B.1*****Biased 7-Test Composite Validities and ASVAB Test Betas for 150 Job Families (Uncorrected)  
(Sample B)***

	GS	AR	AS	MK	MC	EI	VE
11B							
0.35548							
	5	6	7	1	4	3	2
	0.04352	0.03190	0.02388	0.18829	0.05405	0.05612	0.06806
11C							
0.46363							
	6	2	3	1	7	5	4
	0.05066	0.15378	0.12348	0.18543	-0.04212	0.05647	0.09794
11H							
0.51563							
	4	5	6	1	7	3	2
	0.08000	0.05950	0.05865	0.23655	-0.00568	0.09312	0.15966
11M							
0.36397							
	4	5	7	1	6	2	3
	0.06431	0.05339	0.01380	0.14623	0.03778	0.09601	0.06739
12B							
0.48029							
	2	7	3	1	5	6	4
	0.14173	0.02345	0.08641	0.22976	0.05984	0.03523	0.06161
12C							
0.45538							
	3	5	4	1	2	7	6
	0.10921	0.05575	0.06674	0.19608	0.12612	0.01713	0.02952
12F							
0.39369							
	5	4	1	3	6	7	2
	0.00543	0.02582	0.25593	0.08629	0.00480	-0.02992	0.17338
13B							
0.56749							
	7	6	2	4	3	5	1
	0.03644	0.04694	0.21377	0.08662	0.09058	0.06196	0.22408
13C							
0.52283							
	7	4	2	1	5	3	6
	-0.09270	0.08548	0.25006	0.25235	0.01405	0.20289	-0.03721
13E							
0.55295							
	6	2	3	1	7	5	4
	0.02382	0.17622	0.15724	0.25608	-0.10587	0.08811	0.14319
13F							
0.52227							
	5	6	3	2	7	4	1
	0.07270	0.04898	0.16872	0.19047	-0.20125	0.16747	0.22362
13M							
0.46542							
	5	1	4	2	7	6	3
	-0.03081	0.26970	0.04638	0.25997	-0.12827	-0.03906	0.11365



13N  
 0.47558  
     6        2        4        1        7        5        3  
     -0.01457 0.20612 0.04228 0.24310-0.03872 0.00151 0.14066  
 13R  
 0.40230  
     2        1        5        3        6        4        7  
     0.12901 0.21533 0.02793 0.06057 0.02605 0.03260 0.01865  
 14D  
 0.46949  
     4        1        2        5        7        3        6  
     0.04330 0.36532 0.16491 0.01221-0.05809 0.05904-0.01105  
 15E  
 0.41093  
     4        1        6        3        5        2        7  
     0.09500 0.19689 0.01917 0.10276 0.04957 0.12379-0.07669  
 16E  
 0.40499  
     2        1        6        5        4        3        7  
     0.10949 0.21865-0.02535 0.03813 0.07252 0.10937-0.02597  
 16P  
 0.49264  
     6        1        4        2        7        3        5  
     0.04048 0.23053 0.10631 0.17471-0.06652 0.10942 0.05180  
 16R  
 0.61001  
     6        1        7        3        2        5        4  
     0.04286 0.23040-0.05794 0.16209 0.20834 0.05730 0.11611  
 16S  
 0.53864  
     5        6        4        1        7        3        2  
     0.06959 0.01489 0.08168 0.24571-0.00930 0.13137 0.18206  
 19D  
 0.49237  
     3        4        6        2        7        5        1  
     0.11028 0.07529 0.07095 0.12726 0.04242 0.07459 0.15612  
 19E  
 0.52387  
     7        4        6        2        5        3        1  
     -0.00992 0.12352 0.07647 0.14122 0.08275 0.12570 0.16709  
 19K  
 0.29783  
     6        3        1        5        4        7        2  
     -0.08965 0.10559 0.21835-0.07031 0.06080-0.11186 0.19101  
 24Z  
 0.59671  
     5        4        3        1        7        2        6  
     -0.00658 0.07088 0.16634 0.38379-0.11464 0.30483-0.05661  
 25M  
 0.43305  
     7        2        4        5        1        6        3  
     -0.11374 0.19113 0.13171-0.02681 0.22542-0.08843 0.19111  
 25S  
 0.44986  
     7        4        2        3        5        6        1  
     -0.13835 0.03227 0.19616 0.04422 0.02459-0.03181 0.40785

27E  
 0.41253  
     5        4        6        2        7        1        3  
     0.01565 0.03817-0.01304 0.24434-0.10772 0.24507 0.06653  
 27Z  
 0.55149  
     7        5        3        2        4        6        1  
     -0.15253 0.01650 0.21665 0.22658 0.20261-0.03147 0.24786  
 29V  
 0.53787  
     7        5        1        4        3        6        2  
     -0.21382 0.01248 0.37066 0.07922 0.19687-0.06568 0.25931  
 31C  
 0.34502  
     7        2        5        3        4        1        6  
     -0.16673 0.12805 0.04204 0.10473 0.04671 0.21847 0.03470  
 31K  
 0.39755  
     7        4        2        3        5        6        1  
     -0.31412 0.07865 0.15151 0.14467 0.06385 0.01986 0.31729  
 31L  
 0.51648  
     7        6        1        2        3        5        4  
     -0.17886-0.03147 0.27958 0.21508 0.20866-0.00975 0.17753  
 31N  
 0.44644  
     7        5        3        4        2        6        1  
     -0.14361 0.05911 0.19328 0.10518 0.19358-0.04284 0.20653  
 31P  
 0.15026  
     5        4        1        3        6        7        2  
     -0.01970 0.04328 0.10728 0.04785-0.03140-0.05731 0.09449  
 31Q  
 0.43641  
     7        5        1        3        4        6        2  
     -0.17189 0.02320 0.23640 0.17717 0.10024 0.00823 0.20151  
 31R  
 0.38910  
     6        4        2        3        1        7        5  
     -0.01035 0.08889 0.14841 0.10975 0.16625-0.01850 0.02318  
 31S  
 0.24702  
     5        6        4        2        3        7        1  
     0.02029-0.10041 0.03007 0.13845 0.13077-0.17274 0.16431  
 31V  
 0.23991  
     7        5        2        4        3        6        1  
     -0.03354-0.01265 0.05220 0.02478 0.03925-0.02912 0.22813  
 35E  
 0.41418  
     7        5        2        4        3        6        1  
     -0.15633 0.02328 0.22061 0.02490 0.12324-0.11718 0.34999  
 35H  
 0.34045  
     3        7        2        4        1        6        5  
     0.07430-0.11411 0.16859 0.06253 0.19502-0.01315 0.00109

35J  
 0.49153  
     7        3        4        6        2        5        1  
     -0.28427 0.11859 0.10108-0.12634 0.25368 0.02463 0.40586  
 35N  
 0.59933  
     7        4        2        6        3        5        1  
     -0.11053 0.15091 0.22330-0.01145 0.21923 0.03363 0.25884  
 36M  
 0.53048  
     5        2        6        1        4        3        7  
     0.05592 0.15571-0.08593 0.29274 0.12493 0.15201-0.09565  
 41C  
 0.69985  
     7        3        2        5        4        6        1  
     -0.28553 0.18517 0.35968 0.14560 0.16557-0.02993 0.36184  
 44B  
 0.27437  
     5        1        4        7        2        6        3  
     -0.01476 0.18831 0.01142-0.13219 0.18591-0.02130 0.04752  
 44E  
 0.40899  
     3        7        4        1        6        5        2  
     0.12795-0.03376 0.08705 0.20729-0.02332 0.00082 0.15739  
 45B  
 0.48528  
     7        1        3        4        5        6        2  
     -0.29461 0.40356 0.14133 0.06440 0.03487-0.00575 0.15236  
 45D  
 0.44976  
     5        4        6        2        1        7        3  
     0.00249 0.00923-0.01144 0.18378 0.40863-0.17514 0.02790  
 45E  
 0.55284  
     6        4        3        2        7        5        1  
     -0.15363 0.10274 0.20963 0.29259-0.15967 0.02583 0.37737  
 45K  
 0.56310  
     5        1        4        6        2        7        3  
     -0.07671 0.37852 0.13402-0.09116 0.29411-0.17155 0.14646  
 45L  
 0.33644  
     4        5        2        1        7        3        6  
     0.03711-0.02190 0.17526 0.31703-0.16908 0.09732-0.06323  
 45N  
 0.46744  
     7        3        2        4        1        6        5  
     -0.14670 0.15670 0.16963 0.12924 0.26263-0.09740 0.08148  
 45T  
 0.45123  
     6        3        2        4        1        5        7  
     -0.04544 0.16182 0.19190 0.11898 0.20968-0.01887-0.08011  
 46Z  
 0.42569  
     7        3        4        5        6        2        1  
     -0.44559 0.14331 0.13564 0.07268 0.04717 0.19250 0.27902

51B  
 0.47535  
     7        6        2        1        4        5        3  
     -0.27428-0.17705 0.30127 0.33924 0.11139 0.07739 0.17632  
 51K  
 0.44564  
     5        4        1        2        7        3        6  
     -0.05475 0.01497 0.40169 0.34854-0.22118 0.06559-0.05641  
 51M  
 0.34368  
     7        1        5        6        3        4        2  
     -0.17202 0.20599 0.05274-0.03988 0.13453 0.05792 0.15389  
 51R  
 0.54932  
     7        1        6        3        2        4        5  
     -0.20684 0.33509 0.03688 0.09097 0.22311 0.08033 0.07324  
 51T  
 0.73905  
     7        1        3        4        5        2        6  
     -0.20861 0.31933 0.24460 0.22983 0.07229 0.28758-0.01428  
 52C  
 0.57026  
     7        1        6        4        3        5        2  
     -0.13873 0.35368-0.11988 0.01499 0.23861 0.01319 0.25614  
 52D  
 0.36185  
     5        2        4        7        3        6        1  
     -0.00897 0.12957-0.00748-0.17641 0.11752-0.07672 0.33393  
 54B  
 0.18592  
     6        7        2        5        1        3        4  
     -0.04279-0.05099 0.08195-0.02912 0.16189 0.01524-0.00912  
 55B  
 0.63030  
     5        2        1        6        4        7        3  
     0.04924 0.20016 0.35227 0.04498 0.06902 0.03017 0.08878  
 55D  
 0.47667  
     6        2        1        4        3        7        5  
     0.04364 0.14322 0.17003 0.11105 0.14235-0.03294 0.05998  
 55G  
 0.66502  
     7        6        5        3        1        2        4  
     -0.37997 0.00277 0.04998 0.16746 0.51167 0.20955 0.15466  
 57E  
 0.43886  
     6        1        2        4        3        7        5  
     0.01768 0.21347 0.16800 0.04897 0.12447-0.05240 0.04742  
 62B  
 0.69623  
     3        2        1        4        5        7        6  
     0.14187 0.14265 0.47282 0.05444 0.03982 0.00725 0.03519  
 62E  
 0.38470  
     5        3        1        4        6        7        2  
     -0.02293 0.14793 0.23321 0.11384-0.03795-0.07762 0.15277

62F  
0.50598  
7 5 2 4 6 1 3  
-0.02061 0.05177 0.18151 0.14271-0.00471 0.18732 0.14717

62J  
0.32735  
5 2 1 6 7 4 3  
-0.03747 0.14336 0.23295-0.04280-0.07551 0.03645 0.13613

63B  
0.54557  
6 2 1 5 4 7 3  
0.05047 0.16641 0.21842 0.10554 0.14596-0.11937 0.15448

63D  
0.46884  
6 2 1 4 5 7 3  
-0.00139 0.18568 0.32730 0.05834 0.04921-0.10855 0.09134

63E  
0.49013  
5 2 1 4 7 6 3  
-0.00577 0.22613 0.29548 0.05467-0.04582-0.02274 0.14703

63G  
0.37978  
5 4 1 3 7 6 2  
0.01894 0.10250 0.23608 0.12467-0.18284-0.01396 0.19657

63H  
0.31157  
5 2 1 4 7 6 3  
0.03583 0.13258 0.15036 0.05763-0.06571-0.01267 0.11633

63J  
0.71272  
6 4 1 5 3 7 2  
-0.01668 0.17761 0.35550 0.07669 0.17775-0.05251 0.22716

63N  
0.42963  
6 2 1 4 7 5 3  
-0.02258 0.19085 0.20363 0.05023-0.02992 0.01952 0.16393

63S  
0.41166  
5 4 2 1 6 7 3  
0.03360 0.06916 0.19216 0.26066-0.06600-0.06933 0.12000

63T  
0.40678  
6 3 2 1 7 5 4  
-0.00455 0.08512 0.16492 0.23039-0.02783 0.04268 0.06199

63W  
0.45982  
6 3 4 2 7 5 1  
-0.08808 0.14672 0.11971 0.23822-0.09227-0.00140 0.25426

63Y  
0.42427  
5 1 4 3 7 6 2  
0.06042 0.17331 0.09809 0.15563-0.09214-0.02396 0.16823

67N  
0.32874  
5 3 4 2 6 7 1  
-0.01703 0.08978 0.07552 0.13055-0.02308-0.03610 0.19851

67R  
 0.35630  
     4        6        5        1        7        2        3  
     0.06734 0.03582 0.04197 0.16618-0.00868 0.09943 0.06970  
 67T  
 0.28029  
     2        5        4        1        6        7        3  
     0.13777-0.04605 0.05744 0.22904-0.08727-0.09964 0.08128  
 67U  
 0.45000  
     6        4        3        2        5        7        1  
     -0.12587-0.00770 0.22785 0.30417-0.12036-0.15946 0.37351  
 67V  
 0.37545  
     3        2        7        5        6        4        1  
     0.11018 0.13813-0.06485 0.03914 0.01458 0.04378 0.16056  
 67Y  
 0.57411  
     3        1        6        2        5        7        4  
     0.12020 0.34869-0.03213 0.22187-0.00113-0.05627 0.02974  
 68B  
 0.39258  
     6        2        3        4        5        7        1  
     -0.01557 0.13376 0.09671 0.09378 0.04470-0.14943 0.26400  
 68D  
 0.46141  
     5        7        3        4        1        6        2  
     -0.00357-0.11232 0.13868 0.01341 0.32472-0.05100 0.19367  
 68F  
 0.56204  
     7        6        3        1        4        5        2  
     -0.26871 0.01516 0.11117 0.38358 0.08211 0.01968 0.34369  
 68G  
 0.55494  
     7        1        3        4        5        6        2  
     -0.19849 0.27131 0.18654 0.16812 0.15509-0.17646 0.24915  
 68J  
 0.26493  
     6        4        7        2        3        1        5  
     -0.00133 0.04405-0.10065 0.11272 0.07528 0.13928 0.02443  
 68M  
 0.32477  
     1        2        6        7        5        3        4  
     0.17875 0.16251-0.11319-0.14062-0.03919 0.14434 0.09914  
 68N  
 0.29082  
     5        1        6        4        3        7        2  
     0.02151 0.15573-0.00076 0.06144 0.06730-0.04755 0.09081  
 68Z  
 0.38080  
     7        5        2        3        6        4        1  
     -0.01710 0.04979 0.09736 0.08537 0.02321 0.05928 0.21053  
 71D  
 0.41923  
     7        6        2        1        3        5        4  
     -0.04001 0.00711 0.09143 0.33148 0.06022 0.03147 0.04988

71G  
 0.50734  
     2        4        6        1        7        3        5  
     0.20126 0.05473-0.06877 0.34016-0.08788 0.13366-0.01773  
 71L  
 0.33347  
     6        1        4        3        5        7        2  
     0.00727 0.15636 0.04795 0.10446 0.01461-0.02754 0.12185  
 71M  
 0.38568  
     6        2        4        1        7        5        3  
     0.01548 0.17765 0.07665 0.22249-0.22815 0.04377 0.11162  
 72E  
 0.37668  
     7        2        5        3        6        1        4  
     -0.10842 0.19066-0.00632 0.11138-0.09375 0.23495 0.11091  
 72G  
 0.37665  
     4        1        3        2        7        5        6  
     0.06687 0.18542 0.08481 0.10348-0.00773 0.05054 0.01240  
 73C  
 0.31325  
     4        1        3        6        7        2        5  
     0.03719 0.18936 0.03892 0.03169 0.01688 0.05503 0.03322  
 73D  
 0.26797  
     6        1        5        2        4        3        7  
     -0.02225 0.12948 0.00907 0.11764 0.02733 0.09338-0.03577  
 74B  
 0.29144  
     6        1        5        4        7        3        2  
     -0.03450 0.23276 0.00022 0.00088-0.10673 0.08516 0.13765  
 75B  
 0.31934  
     3        1        2        5        7        6        4  
     0.13271 0.22527 0.15467-0.01461-0.10393-0.03001 0.01879  
 75C  
 0.28598  
     3        5        4        1        7        2        6  
     0.06481 0.03417 0.06329 0.13632-0.01251 0.06690 0.03103  
 75D  
 0.45180  
     7        1        5        2        3        4        6  
     -0.05212 0.18320 0.01528 0.18238 0.13281 0.12134-0.03048  
 75E  
 0.48734  
     7        3        2        6        1        5        4  
     -0.01214 0.10531 0.11383 0.03724 0.19688 0.09661 0.09758  
 75F  
 0.53349  
     7        3        5        6        1        4        2  
     -0.18720 0.14012 0.02601 0.02097 0.36725 0.06017 0.19680  
 76J  
 0.54804  
     3        2        1        6        5        4        7  
     0.10835 0.15690 0.23954 0.03164 0.08539 0.10102-0.00647

76P  
 0.44657  
     7        2        5        4        1        3        6  
     -0.17181 0.19310-0.02237 0.09607 0.29927 0.10433-0.03407  
 76V  
 0.45036  
     7        1        3        5        4        2        6  
     -0.11363 0.34865 0.05219-0.01882 0.01516 0.23873-0.02235  
 76X  
 0.62859  
     6        1        4        3        7        2        5  
     -0.11275 0.40254 0.18903 0.22272-0.20443 0.27428-0.03708  
 77F  
 0.36299  
     7        4        1        2        5        6        3  
     -0.16419 0.09801 0.24373 0.20553-0.02335-0.11423 0.19111  
 77W  
 0.52127  
     5        2        1        7        3        4        6  
     0.06184 0.18951 0.20484-0.03072 0.11535 0.07810 0.05414  
 81L  
 0.21763  
     7        2        3        4        6        5        1  
     -0.07712 0.08727 0.01691-0.01157-0.03928-0.03078 0.24718  
 82C  
 0.34843  
     7        1        2        3        5        4        6  
     -0.01874 0.20056 0.12447 0.05179 0.02669 0.05112 0.01720  
 88H  
 0.46600  
     5        1        4        3        7        2        6  
     -0.03271 0.41337 0.06331 0.10228-0.13167 0.11417-0.03941  
 88M  
 0.29546  
     6        1        3        5        7        4        2  
     -0.05848 0.33247-0.00972-0.03340-0.07476-0.01164 0.09234  
 88N  
 0.20155  
     7        1        2        3        6        5        4  
     -0.16002 0.14443 0.11149 0.08863-0.07104-0.03061 0.07440  
 91A  
 0.36655  
     6        1        4        7        5        3        2  
     -0.07151 0.23996 0.07882-0.12208-0.04697 0.16475 0.17181  
 91D  
 0.24899  
     6        1        7        4        3        2        5  
     -0.10463 0.18615-0.10977 0.03957 0.05922 0.15319-0.03960  
 91E  
 0.48284  
     2        3        5        6        7        1        4  
     0.20745 0.16955-0.02533-0.04054-0.25202 0.31490 0.11409  
 91F  
 0.28613  
     7        4        2        1        6        3        5  
     -0.06440-0.00203 0.14717 0.25676-0.01420 0.03581-0.00944



91G  
 0.41512  
     3        2        6        5        1        4        7  
     0.12859 0.14128-0.00059 0.01918 0.20163 0.04836-0.03063  
 91K  
 0.40064  
     3        1        6        5        4        2        7  
     0.19052 0.29144-0.05152-0.03204 0.03546 0.19342-0.27290  
 91M  
 0.50875  
     4        3        5        6        1        2        7  
     0.02439 0.18623-0.02918-0.04358 0.31861 0.22747-0.15224  
 91P  
 0.38807  
     7        5        4        1        6        3        2  
     -0.22649 0.01425 0.06708 0.28619-0.09334 0.13170 0.25825  
 91Q  
 0.33396  
     6        1        3        7        5        4        2  
     -0.04334 0.25960 0.11455-0.11024-0.03838 0.05801 0.14294  
 91R  
 0.37040  
     6        1        5        2        3        7        4  
     0.01001 0.13832 0.03474 0.12634 0.11390-0.00338 0.05675  
 91S  
 0.57933  
     2        1        3        7        5        4        6  
     0.13378 0.32141 0.10553-0.01817 0.05895 0.09014 0.05519  
 91T  
 0.49381  
     3        1        2        7        4        5        6  
     0.07716 0.48576 0.20860-0.35063 0.05226-0.02311-0.05796  
 91Z  
 0.27897  
     7        6        2        1        3        4        5  
     -0.12090-0.00867 0.08200 0.24049 0.07397 0.03412 0.02638  
 92A  
 0.24185  
     6        2        7        5        4        1        3  
     0.01005 0.08299 0.00165 0.03316 0.03467 0.09941 0.05209  
 92G  
 0.30953  
     7        2        5        3        6        1        4  
     -0.09303 0.11148 0.00386 0.09660-0.01435 0.19522 0.08214  
 92M  
 0.60365  
     7        1        2        5        6        4        3  
     -0.26256 0.45075 0.18825 0.09756-0.05842 0.12284 0.17360  
 92R  
 0.31384  
     7        1        5        3        6        2        4  
     -0.05618 0.15375 0.02931 0.11833-0.00907 0.12689 0.03038  
 92Y  
 0.43737  
     5        1        2        7        4        6        3  
     -0.02493 0.45772 0.18750-0.21065 0.03180-0.18871 0.11445

93C  
 0.44278  
     7        2        4        1        6        3        5  
     -0.16987 0.20300 0.10066 0.26723-0.10392 0.16250 0.05562  
 93P  
 0.69359  
     6        4        2        3        7        1        5  
     -0.04338 0.18070 0.30217 0.28898-0.17989 0.36830-0.03248  
 95B  
 0.50856  
     6        4        2        1        5        7        3  
     -0.01054 0.04358 0.22835 0.25852 0.02750-0.09138 0.22654  
 95C  
 0.30878  
     4        5        3        2        6        1        7  
     0.00580-0.01792 0.01740 0.17986-0.03639 0.24773-0.04788  
 96B  
 0.27584  
     7        2        4        5        3        1        6  
     -0.07642 0.07891 0.05834 0.04090 0.05987 0.15605 0.02683  
 96D  
 0.25359  
     6        2        5        3        4        1        7  
     -0.02677 0.07673 0.00630 0.07593 0.04974 0.18239-0.08801  
 96R  
 0.49203  
     7        1        3        2        6        5        4  
     -0.18806 0.36783 0.10226 0.22025-0.04735-0.03010 0.07176  
 97B  
 0.46136  
     4        3        2        1        5        6        7  
     0.07849 0.18649 0.20366 0.25719-0.01992-0.02138-0.11798  
 98C  
 0.44659  
     5        3        2        1        4        7        6  
     0.08743 0.09539 0.15297 0.24653 0.08995-0.17445 0.05894  
 98G  
 0.39173  
     7        3        2        4        5        6        1  
     -0.12366 0.12530 0.17719 0.08579 0.05612-0.00849 0.20504  
 98H  
 0.35094  
     4        3        7        5        2        1        6  
     0.02615 0.06962-0.05284 0.01710 0.16591 0.21237-0.03912  
 98Z  
 0.37720  
     7        6        5        1        2        4        3  
     -0.19202-0.07742-0.01678 0.35047 0.22383 0.00431 0.05136

**Table B.2**  
**Biased 7-Test Composite Validities and ASVAB Test Betas for 150 Job Families (Corrected)**  
**(Sample B)**

	GS	AR	AS	MK	MC	EI	VE
11B							
0.35921							
	6	5	2	1	3	4	7
	0.03107	0.04189	0.09388	0.17208	0.08830	0.04443	0.01044
11C							
0.50403							
	5	2	1	3	6	7	4
	0.05372	0.16604	0.19717	0.12227	0.05185	0.04193	0.05471
11H							
0.47531							
	6	3	2	1	7	5	4
	0.04529	0.09733	0.14133	0.17671	0.04379	0.06618	0.08259
11M							
0.38537							
	3	6	4	1	2	5	7
	0.08742	0.06716	0.07870	0.12648	0.09370	0.07205	0.01308
12B							
0.46968							
	4	5	2	1	3	6	7
	0.10268	0.09168	0.12937	0.15085	0.12064	0.03199	0.00254
12C							
0.49313							
	4	5	1	2	3	6	7
	0.11009	0.10306	0.20575	0.16098	0.15746	0.04333	0.05060
12F							
0.45426							
	6	2	1	4	3	7	5
	0.00763	0.13056	0.30058	0.04997	0.05006	0.00630	0.04675
13B							
0.43878							
	6	7	2	1	3	5	4
	0.05793	0.00948	0.12022	0.13859	0.10319	0.07201	0.09199
13C							
0.58814							
	5	7	2	1	4	3	6
	0.04806	0.03849	0.28086	0.28284	0.07713	0.09879	0.04539
13E							
0.57799							
	5	1	6	2	4	7	3
	0.03958	0.27645	0.03905	0.22822	0.05054	0.03425	0.05907
13F							
0.53633							
	6	2	3	1	7	4	5
	0.04950	0.13854	0.12084	0.21557	0.02148	0.09913	0.08362
13M							
0.51361							
	5	1	2	3	6	7	4
	0.03456	0.23722	0.18253	0.13871	0.01609	0.06087	0.13428

13N  
 0.49957  
     6      5      2      1      3      7      4  
 -0.00831 0.09826 0.16304 0.21695 0.11224-0.01117 0.10706  
 13R  
 0.46445  
     4      1      2      7      5      6      3  
 0.07008 0.19714 0.19176 0.01638 0.04642 0.02454 0.07188  
 14D  
 0.54001  
     5      2      1      6      3      7      4  
 0.04206 0.23649 0.27784 0.01606 0.10578-0.07204 0.09567  
 15E  
 0.51068  
     6      4      2      3      1      7      5  
 0.02714 0.08062 0.17323 0.09820 0.23243 0.01903 0.03428  
 16E  
 0.56868  
     4      3      2      7      1      6      5  
 0.08455 0.12408 0.13758 0.02009 0.23688 0.06014 0.07133  
 16P  
 0.54554  
     6      3      1      2      4      5      7  
 0.02317 0.11473 0.24276 0.14843 0.10761 0.10247-0.01061  
 16R  
 0.48115  
     5      4      7      2      3      6      1  
 0.03665 0.12705-0.02510 0.15474 0.13145-0.01059 0.18744  
 16S  
 0.48961  
     7      4      2      1      6      3      5  
 0.04917 0.09715 0.11781 0.14908 0.06371 0.10092 0.09108  
 19D  
 0.50211  
     2      3      4      5      1      7      6  
 0.12143 0.11697 0.11275 0.07601 0.13157 0.03961 0.07151  
 19E  
 0.52613  
     7      2      3      5      1      4      6  
 0.01133 0.17525 0.14504 0.05883 0.17931 0.07248 0.05062  
 19K  
 0.48175  
     6      2      1      7      4      5      3  
 -0.01363 0.20389 0.25313-0.05072 0.08539-0.00334 0.13678  
 24Z  
 0.63991  
     5      7      6      1      4      2      3  
 0.07105-0.09217 0.03076 0.42464 0.09938 0.17773 0.10027  
 25M  
 0.49571  
     4      1      5      6      2      7      3  
 0.06765 0.24277 0.05604 0.00591 0.16744-0.00083 0.09262  
 25S  
 0.58803  
     7      2      4      6      3      5      1  
 -0.05763 0.16761 0.09422 0.02614 0.10977 0.05805 0.35828

27E  
 0.52798  
     7        5        4        3        6        2        1  
     -0.00934 0.10108 0.12106 0.12944 0.05439 0.14999 0.17097  
 27Z  
 0.53448  
     7        6        2        1        4        5        3  
     0.01337 0.08611 0.12885 0.19189 0.10233 0.10148 0.10575  
 29V  
 0.47049  
     7        6        1        4        3        5        2  
     -0.03834 0.04555 0.24153 0.08777 0.10008 0.06888 0.12114  
 31C  
 0.66534  
     7        1        5        3        6        2        4  
     -0.03816 0.32154 0.01390 0.22563-0.01221 0.28477 0.03566  
 31K  
 0.49915  
     7        1        5        3        6        4        2  
     -0.05634 0.22986 0.07778 0.13177-0.01748 0.11597 0.17515  
 31L  
 0.54997  
     7        6        2        1        3        4        5  
     -0.03522 0.04831 0.16562 0.21045 0.13360 0.12235 0.10237  
 31N  
 0.53132  
     7        3        1        4        2        5        6  
     0.00933 0.12306 0.14368 0.11293 0.12488 0.10941 0.09630  
 31P  
 0.68497  
     2        1        6        5        7        4        3  
     0.13577 0.31630 0.06202 0.07755 0.05953 0.11250 0.13221  
 31Q  
 0.50917  
     7        5        1        2        6        3        4  
     -0.03415 0.09424 0.17017 0.16552 0.06905 0.13263 0.09923  
 31R  
 0.63572  
     3        1        6        4        2        5        7  
     0.15932 0.27658 0.06399 0.09939 0.17990 0.08644-0.05459  
 31S  
 0.81562  
     2        5        7        1        4        3        6  
     0.27998 0.10230-0.03378 0.34762 0.12252 0.14718 0.06614  
 31V  
 0.58346  
     4        5        7        3        6        2        1  
     0.09346 0.07848 0.02174 0.09456 0.07585 0.09663 0.28687  
 35E  
 0.51903  
     7        5        2        3        4        6        1  
     -0.02140 0.06152 0.15365 0.13839 0.09176-0.00322 0.27479  
 35H  
 0.46972  
     1        6        5        4        2        3        7  
     0.19248-0.00525 0.08773 0.10935 0.14604 0.11909-0.05892

35J  
 0.60279  
     7        6        1        5        3        4        2  
 -0.11690-0.03561 0.28128 0.06586 0.18998 0.16008 0.20576  
 35N  
 0.70897  
     4        6        1        3        7        5        2  
 0.12333 0.06840 0.36486 0.12566 0.04281 0.07135 0.15597  
 36M  
 0.73024  
     3        5        6        1        4        2        7  
 0.21862 0.10335 0.05102 0.27555 0.17266 0.21885-0.10781  
 41C  
 0.67066  
     7        5        1        2        4        6        3  
 -0.09186 0.09139 0.39317 0.21821 0.09849 0.05425 0.14282  
 44B  
 0.44326  
     5        1        2        7        4        3        6  
 0.09273 0.16071 0.13345-0.05915 0.11367 0.12065-0.01353  
 44E  
 0.46798  
     2        7        3        1        5        4        6  
 0.13880-0.07229 0.13560 0.18920 0.10696 0.11116-0.00354  
 45B  
 0.56800  
     7        1        2        4        6        5        3  
 -0.10854 0.28039 0.25769 0.10965 0.03667 0.05042 0.12578  
 45D  
 0.66018  
     3        7        4        2        1        5        6  
 0.17745-0.01217 0.17634 0.23956 0.26128 0.02135-0.00326  
 45E  
 0.60316  
     7        5        1        2        6        3        4  
 -0.19700 0.05374 0.25500 0.23834 0.02706 0.23477 0.19248  
 45K  
 0.61936  
     4        1        2        5        6        7        3  
 0.14135 0.26775 0.21737 0.02056 0.00910 0.00887 0.15718  
 45L  
 0.59386  
     2        6        4        1        7        5        3  
 0.19975-0.02630 0.09193 0.34995-0.13136 0.07087 0.18238  
 45N  
 0.53124  
     7        4        1        3        2        6        5  
 -0.02802 0.07595 0.23080 0.16905 0.19137 0.01333 0.05417  
 45T  
 0.54470  
     2        6        1        3        5        4        7  
 0.15487 0.03484 0.18953 0.14951 0.14120 0.14544-0.12600  
 46Z  
 0.35356  
     7        5        1        4        6        3        2  
 -0.16615 0.05906 0.22717 0.11232-0.04054 0.11434 0.14554

51B  
 0.57840  
     7        6        2        1        5        3        4  
 -0.14172-0.03847 0.26723 0.34083 0.08109 0.17077 0.08502  
 51K  
 0.56382  
     5        6        2        1        7        3        4  
 0.00206-0.10190 0.35349 0.42456-0.20498 0.20083 0.02580  
 51M  
 0.59713  
     4        5        2        3        7        1        6  
 0.09943 0.09550 0.18409 0.10209 0.04164 0.18463 0.09451  
 51R  
 0.74744  
     6        3        1        4        5        2        7  
 0.03957 0.20194 0.24955 0.16356 0.11327 0.22217 0.00994  
 51T  
 0.72139  
     7        5        1        3        2        4        6  
 -0.04829 0.14391 0.22438 0.17500 0.18889 0.17266 0.11517  
 52C  
 0.55543  
     6        1        5        4        7        3        2  
 0.06593 0.18850 0.08362 0.08852 0.03341 0.12979 0.15396  
 52D  
 0.59933  
     3        4        2        7        5        6        1  
 0.18004 0.12456 0.18713-0.07772 0.00398-0.05356 0.35080  
 54B  
 0.40595  
     4        6        1        5        3        2        7  
 0.06929-0.00399 0.19055 0.05366 0.10408 0.12692-0.04295  
 55B  
 0.66562  
     6        5        1        3        4        2        7  
 0.03035 0.09094 0.33282 0.12750 0.11525 0.16645 0.01035  
 55D  
 0.60883  
     2        5        1        4        3        6        7  
 0.14637 0.07395 0.27902 0.13109 0.13633 0.05106-0.01171  
 55G  
 0.64652  
     5        6        3        4        1        2        7  
 0.04441 0.02917 0.12674 0.10114 0.28069 0.23958-0.01254  
 57E  
 0.57214  
     3        4        1        5        6        2        7  
 0.11948 0.11415 0.26218 0.09535 0.06585 0.12206-0.02310  
 62B  
 0.71220  
     5        4        1        6        3        2        7  
 0.06833 0.07941 0.44141 0.06413 0.12025 0.14671-0.03696  
 62E  
 0.71483  
     7        6        1        4        2        5        3  
 -0.02844 0.06163 0.41574 0.06652 0.23065 0.06497 0.08959

62F  
 0.74886  
     7        5        1        4        3        2        6  
     -0.00994 0.03051 0.42078 0.09946 0.17240 0.21435 0.00197  
 62J  
 0.61330  
     7        3        1        6        5        2        4  
     -0.05831 0.12426 0.37113 0.00393 0.05331 0.17913 0.09072  
 63B  
 0.48534  
     6        3        4        1        2        7        5  
     -0.00375 0.13732 0.12904 0.14975 0.14231-0.02490 0.12029  
 63D  
 0.50273  
     7        5        1        2        3        6        4  
     -0.05671 0.07822 0.29434 0.13266 0.12037 0.01932 0.07926  
 63E  
 0.70589  
     7        5        1        4        2        3        6  
     -0.00389 0.05807 0.42091 0.09252 0.20867 0.09303 0.01601  
 63G  
 0.64831  
     7        4        1        3        6        5        2  
     -0.00621 0.07147 0.46600 0.09469 0.02862 0.06331 0.11789  
 63H  
 0.63188  
     7        3        1        5        4        2        6  
     0.02707 0.08320 0.42771 0.05041 0.07430 0.08578 0.04833  
 63J  
 0.67732  
     7        5        1        6        2        4        3  
     0.00323 0.09522 0.29353 0.09261 0.20083 0.09581 0.11453  
 63N  
 0.76331  
     7        4        1        5        2        3        6  
     -0.03746 0.13989 0.42446 0.04874 0.19984 0.14763 0.03809  
 63S  
 0.64886  
     7        6        1        2        3        5        4  
     0.01676 0.03899 0.37567 0.21420 0.11939 0.04200 0.06437  
 63T  
 0.61888  
     7        2        1        3        5        4        6  
     -0.02967 0.20492 0.29922 0.13052 0.06189 0.11417 0.05006  
 63W  
 0.63190  
     7        3        1        4        6        5        2  
     -0.04310 0.14761 0.28941 0.12257 0.05968 0.07595 0.21033  
 63Y  
 0.63516  
     7        4        1        2        3        6        5  
     0.03242 0.12399 0.23977 0.16099 0.14077 0.06617 0.10200  
 67N  
 0.49836  
     7        5        1        4        3        6        2  
     -0.03384 0.06772 0.16885 0.11681 0.13770 0.05118 0.16646



67R  
 0.65048  
     6      7      1      4      2      3      5  
     0.05012 0.04358 0.24608 0.11891 0.17899 0.14363 0.07973  
 67T  
 0.30005  
     3      5      4      1      7      6      2  
     0.13056-0.09787 0.08875 0.23266-0.13982-0.12355 0.15852  
 67U  
 0.54057  
     6      4      1      3      5      7      2  
     -0.04166-0.00241 0.37608 0.23609-0.01016-0.14368 0.29058  
 67V  
 0.59982  
     4      3      7      6      2      1      5  
     0.10916 0.12386 0.05138 0.09792 0.13348 0.16781 0.10854  
 67Y  
 0.67990  
     4      1      6      3      2      5      7  
     0.09566 0.32164 0.03176 0.14972 0.17558 0.07559 0.01613  
 68B  
 0.53433  
     5      1      3      4      6      7      2  
     0.07683 0.18794 0.12573 0.11665 0.03338-0.00632 0.18171  
 68D  
 0.68233  
     3      7      2      6      1      4      5  
     0.18498-0.12087 0.23529-0.00414 0.32983 0.12663 0.01903  
 68F  
 0.59211  
     6      4      3      1      5      7      2  
     -0.02380 0.02803 0.05038 0.39759 0.02098-0.02716 0.28047  
 68G  
 0.66728  
     5      1      7      3      4      6      2  
     0.03936 0.34858-0.08430 0.16781 0.13671-0.01076 0.18875  
 68J  
 0.65948  
     6      3      7      1      5      4      2  
     -0.07099 0.19072-0.10646 0.35012 0.01994 0.09028 0.28169  
 68M  
 0.47770  
     4      2      7      5      6      3      1  
     0.08124 0.20045-0.13317 0.07800-0.07582 0.15686 0.21623  
 68N  
 0.49430  
     5      1      7      3      4      6      2  
     -0.02330 0.24173-0.07517 0.18352 0.02566-0.04072 0.22507  
 68Z  
 0.48565  
     7      3      4      2      5      6      1  
     -0.05433 0.11215 0.06876 0.17462 0.00230-0.00923 0.32061  
 71D  
 0.44893  
     7      5      3      1      2      6      4  
     -0.06628 0.04575 0.12744 0.24014 0.14132 0.01866 0.09010

71G  
 0.46510  
     5        3        7        1        6        2        4  
     0.06360 0.10858-0.02986 0.21602-0.00079 0.12025 0.10652  
 71L  
 0.47147  
     5        2        6        1        7        4        3  
     -0.01034 0.22833-0.02723 0.23240-0.06214-0.00351 0.16471  
 71M  
 0.59424  
     4        3        5        1        7        6        2  
     0.07250 0.13728-0.00016 0.32392-0.09756-0.05958 0.29626  
 72E  
 0.54675  
     5        2        7        4        6        3        1  
     0.00778 0.19735-0.11618 0.14348 0.00126 0.14943 0.25984  
 72G  
 0.56868  
     6        1        5        2        7        4        3  
     -0.01704 0.27568 0.03295 0.25097-0.02752 0.04034 0.14532  
 73C  
 0.49298  
     6        1        5        2        7        4        3  
     -0.00217 0.23446 0.00284 0.18385-0.02050 0.05544 0.15626  
 73D  
 0.51586  
     7        2        6        1        5        3        4  
     -0.05563 0.22320-0.02225 0.25488 0.02203 0.10211 0.09739  
 74B  
 0.55984  
     6        1        5        3        7        4        2  
     -0.04148 0.34653-0.03365 0.16294-0.11207 0.09901 0.21781  
 75B  
 0.46763  
     5        1        4        2        7        6        3  
     0.07942 0.24424 0.11419 0.15666-0.09868-0.04709 0.13703  
 75C  
 0.51191  
     5        3        4        1        7        6        2  
     0.01672 0.13910 0.04830 0.30342-0.06094-0.00877 0.18843  
 75D  
 0.48388  
     7        2        6        1        5        4        3  
     -0.10048 0.22677-0.07643 0.23349 0.04906 0.10270 0.10921  
 75E  
 0.49610  
     7        1        6        3        4        5        2  
     -0.02368 0.19748 0.04294 0.11144 0.09023 0.07645 0.15861  
 75F  
 0.57281  
     7        3        6        5        2        4        1  
     -0.10420 0.21115-0.01077 0.01535 0.25822 0.07978 0.25886  
 76J  
 0.56892  
     5        2        1        3        6        4        7  
     0.07185 0.15483 0.21403 0.14741 0.05350 0.08815 0.04752

76P  
 0.44037  
     7        4        5        2        1        3        6  
     -0.06735 0.10045 0.05261 0.14834 0.19491 0.12741 0.00022  
 76V  
 0.41018  
     6        2        7        3        5        1        4  
     -0.05559 0.22688-0.08912 0.03390-0.03576 0.34389 0.01303  
 76X  
 0.68318  
     5        2        4        1        7        3        6  
     0.10675 0.23264 0.11875 0.23445 0.01790 0.17347 0.02687  
 77F  
 0.40680  
     6        4        2        1        7        5        3  
     -0.03265 0.06442 0.21840 0.25905-0.10278 0.00083 0.13452  
 77W  
 0.49599  
     6        3        1        7        2        5        4  
     0.05034 0.09626 0.22483 0.03218 0.12342 0.06085 0.06316  
 81L  
 0.27243  
     7        3        4        2        6        5        1  
     -0.04858 0.09270-0.00819 0.11804-0.04746-0.00990 0.19762  
 82C  
 0.43948  
     6        1        4        5        2        7        3  
     0.07808 0.11644 0.08501 0.08064 0.11064 0.02484 0.09310  
 88H  
 0.54604  
     3        1        7        2        6        4        5  
     0.11774 0.23760-0.00271 0.19152 0.00314 0.08665 0.05297  
 88M  
 0.35653  
     5        1        7        4        3        6        2  
     0.01319 0.21709-0.05923 0.03206 0.03643 0.00582 0.15966  
 88N  
 0.28938  
     7        1        3        4        6        5        2  
     -0.28546 0.16832 0.14791 0.14276-0.11057-0.03472 0.16830  
 91A  
 0.68639  
     4        2        6        7        3        5        1  
     0.09485 0.29449 0.01535-0.04755 0.11891 0.05488 0.32425  
 91D  
 0.32058  
     6        1        7        2        4        3        5  
     -0.12319 0.21284-0.13440 0.14164 0.03140 0.11823-0.01929  
 91E  
 0.58696  
     3        4        5        7        6        2        1  
     0.11672 0.09987 0.08053-0.03136 0.02889 0.21473 0.22636  
 91F  
 0.48445  
     7        5        3        1        4        6        2  
     -0.02133 0.01410 0.10478 0.33633 0.07170-0.01327 0.13685

91G  
 0.62302  
     1      4      7      5      2      6      3  
     0.25473 0.12582-0.09899 0.11662 0.21568-0.00319 0.13381  
 91K  
 0.58724  
     1      2      7      5      3      4      6  
     0.26556 0.23331-0.13613 0.02470 0.22257 0.12651-0.06180  
 91M  
 0.52330  
     4      3      7      5      1      2      6  
     0.06050 0.10233-0.16467 0.04712 0.33326 0.17064 0.04115  
 91P  
 0.46923  
     7      3      4      2      6      5      1  
     -0.15560 0.10216 0.09263 0.24704-0.05755 0.07238 0.29105  
 91Q  
 0.39292  
     4      2      3      7      5      6      1  
     0.04442 0.16851 0.09454-0.03980 0.02822-0.01897 0.21585  
 91R  
 0.51451  
     7      1      5      2      4      6      3  
     -0.06037 0.24422 0.02580 0.21647 0.06307-0.00729 0.14847  
 91S  
 0.56557  
     6      1      2      7      5      4      3  
     0.06662 0.18610 0.17663 0.05256 0.07918 0.08829 0.11301  
 91T  
 0.50632  
     3      2      1      7      5      6      4  
     0.13499 0.30771 0.33824-0.17106-0.00106-0.08005 0.03157  
 91Z  
 0.35616  
     7      5      2      1      3      4      6  
     -0.04960-0.00860 0.18153 0.26379 0.07941 0.00379-0.01890  
 92A  
 0.34929  
     7      1      6      2      5      4      3  
     -0.02251 0.14818-0.00395 0.12415 0.00073 0.08702 0.10853  
 92G  
 0.54871  
     6      3      7      4      5      2      1  
     -0.04170 0.13217-0.06093 0.11077 0.06546 0.22915 0.25299  
 92M  
 0.69594  
     7      2      4      3      5      6      1  
     -0.05573 0.24228 0.09083 0.17298 0.08460 0.04933 0.33120  
 92R  
 0.46107  
     7      2      6      1      4      5      3  
     0.02486 0.11725 0.05643 0.14957 0.08221 0.07754 0.11151  
 92Y  
 0.39757  
     5      1      4      6      2      7      3  
     -0.09165 0.24693 0.10029-0.10630 0.22754-0.13636 0.16891

93C  
 0.72047  
     6      3      4      2      5      7      1  
 -0.01770 0.21134 0.10200 0.31697 0.00753-0.01965 0.32806  
 93P  
 0.72659  
     5      4      3      1      6      7      2  
 0.09324 0.18134 0.18246 0.27804 0.05334 0.01261 0.18479  
 95B  
 0.58084  
     6      5      1      2      4      7      3  
 0.02969 0.04086 0.33754 0.20663 0.09216-0.04047 0.12288  
 95C  
 0.62768  
     5      7      6      2      4      3      1  
 0.05506-0.10019-0.06190 0.26949 0.13371 0.18537 0.28432  
 96B  
 0.70626  
     7      2      6      4      3      5      1  
 -0.04330 0.30851 0.00667 0.08301 0.13557 0.07878 0.32902  
 96D  
 0.46342  
     4      1      7      3      6      2      5  
 0.05230 0.22760-0.06455 0.12039 0.03772 0.15026 0.04069  
 96R  
 0.57270  
     7      1      5      2      4      6      3  
 -0.12792 0.42033 0.05023 0.17697 0.08075-0.12644 0.12810  
 97B  
 0.63539  
     1      2      4      3      5      7      6  
 0.29801 0.25703 0.15486 0.22072 0.00810-0.09228-0.04588  
 98C  
 0.53746  
     3      2      4      1      6      5      7  
 0.10269 0.15722 0.08765 0.28751 0.03780 0.04577-0.02734  
 98G  
 0.47917  
     7      1      5      2      6      4      3  
 -0.06118 0.14380 0.09125 0.14034 0.06561 0.12978 0.13668  
 98H  
 0.65829  
     5      3      7      6      2      4      1  
 0.05616 0.14599-0.07353-0.02410 0.18058 0.09960 0.39817  
 98Z  
 0.48423  
     7      6      4      2      1      5      3  
 -0.27623-0.12250 0.10792 0.32121 0.33172 0.03449 0.13250

**Table B.3**

***Biased 7-Test Composite Validities and ASVAB Test Betas for the Youth Population (Corrected)  
(Sample B)***

	GS	AR	AS	MK	MC	EI	VE
11B							
0.48475							
	6	4	2	1	3	5	7
	0.03984	0.05640	0.10007	0.20805	0.09807	0.04939	0.02279
11C							
0.67395							
	5	1	2	3	6	7	4
	0.06959	0.20128	0.19027	0.13763	0.05358	0.03832	0.11013
11H							
0.62683							
	6	4	2	1	7	5	3
	0.05254	0.11513	0.13740	0.20357	0.04737	0.07082	0.11867
11M							
0.51251							
	2	4	5	1	3	6	7
	0.10787	0.09094	0.08463	0.15094	0.10277	0.08052	0.01649
12B							
0.62364							
	4	5	2	1	3	6	7
	0.12588	0.12007	0.13254	0.17245	0.12614	0.03098	0.02901
12C							
0.58396							
	4	5	1	2	3	6	7
	0.13171	0.12302	0.20926	0.19601	0.17629	0.04640	0.11617
12F							
0.59983							
	6	2	1	4	5	7	3
	0.01932	0.16615	0.30443	0.06135	0.05453	0.00129	0.10504
13B							
0.59327							
	6	7	3	1	4	5	2
	0.06867	0.01565	0.12430	0.15885	0.10873	0.07759	0.15345
13C							
0.74337							
	6	7	2	1	5	4	3
	0.06553	0.03127	0.26915	0.30085	0.07419	0.09078	0.12571
13E							
0.74604							
	4	1	6	2	5	7	3
	0.05150	0.31930	0.03589	0.24250	0.04981	0.02882	0.11301
13F							
0.70836							
	6	2	4	1	7	5	3
	0.05465	0.17181	0.11979	0.22953	0.01938	0.09971	0.13835
13M							
0.71352							
	5	1	3	4	6	7	2
	0.05325	0.27000	0.16461	0.15181	0.01832	0.06810	0.23691

13N  
 0.68973  
     6      4      3      1      5      7      2  
 -0.00318 0.13190 0.16387 0.23029 0.10818-0.01452 0.20280  
 13R  
 0.66819  
     4      1      2      7      5      6      3  
 0.08311 0.26035 0.19897 0.01084 0.04050 0.02150 0.16844  
 14D  
 0.67778  
     5      1      2      6      4      7      3  
 0.05982 0.26870 0.25764 0.02903 0.11517-0.08126 0.14677  
 15E  
 0.66096  
     6      4      2      3      1      7      5  
 0.03954 0.10848 0.17604 0.11045 0.23924 0.01549 0.09162  
 16E  
 0.73174  
     5      3      4      7      1      6      2  
 0.10777 0.15025 0.13041 0.02535 0.23245 0.05128 0.15820  
 16P  
 0.64924  
     6      3      1      2      4      5      7  
 0.02254 0.13818 0.24406 0.17433 0.11688 0.11470-0.04613  
 16R  
 0.67746  
     5      3      7      2      4      6      1  
 0.04230 0.15765-0.01930 0.16559 0.12929-0.01162 0.29739  
 16S  
 0.65823  
     7      3      4      1      6      5      2  
 0.06330 0.11389 0.11126 0.16982 0.06719 0.10088 0.15340  
 19D  
 0.64131  
     1      3      4      6      2      7      5  
 0.14046 0.13847 0.10815 0.08874 0.13984 0.04337 0.09482  
 19E  
 0.66594  
     7      1      3      6      2      5      4  
 0.01609 0.21269 0.14080 0.06900 0.18779 0.07494 0.08058  
 19K  
 0.65303  
     6      1      2      7      4      5      3  
 -0.00803 0.25377 0.24993-0.05529 0.08732-0.00753 0.24066  
 24Z  
 0.77362  
     5      7      6      1      4      2      3  
 0.07906-0.10130 0.03244 0.44984 0.09597 0.17543 0.16206  
 25M  
 0.68685  
     4      1      5      6      3      7      2  
 0.08533 0.29509 0.05757 0.00752 0.16529-0.00658 0.18244  
 25S  
 0.82500  
     7      2      4      6      3      5      1  
 -0.02988 0.18651 0.08643 0.02383 0.08717 0.03582 0.54159

27E  
 0.71435  
     7        4        5        3        6        2        1  
     -0.00212 0.11794 0.11216 0.14015 0.05414 0.14423 0.27474  
 27Z  
 0.69298  
     7        4        3        1        6        5        2  
     0.01395 0.10577 0.12589 0.20986 0.10281 0.10477 0.16147  
 29V  
 0.60666  
     7        6        1        4        3        5        2  
     -0.04481 0.05274 0.24272 0.10390 0.10816 0.07424 0.18892  
 31C  
 0.80925  
     7        1        5        3        6        2        4  
     -0.02915 0.35897 0.01301 0.23115-0.01044 0.26326 0.08377  
 31K  
 0.71613  
     7        2        5        3        6        4        1  
     -0.04848 0.26850 0.07452 0.13822-0.01672 0.10600 0.29597  
 31L  
 0.70137  
     7        6        3        1        4        5        2  
     -0.03617 0.05810 0.15948 0.23281 0.13567 0.12374 0.16593  
 31N  
 0.70751  
     7        2        3        5        4        6        1  
     0.01861 0.15250 0.13961 0.12188 0.12276 0.10518 0.17936  
 31P  
 0.83858  
     3        1        7        5        6        4        2  
     0.14517 0.33076 0.04993 0.07921 0.05456 0.09451 0.20585  
 31Q  
 0.65722  
     7        5        2        1        6        4        3  
     -0.03757 0.10897 0.16344 0.18986 0.07363 0.13871 0.14845  
 31R  
 0.77393  
     2        1        6        4        3        5        7  
     0.18528 0.31924 0.05787 0.10948 0.17601 0.07785-0.04206  
 31S  
 0.89331  
     2        5        7        1        4        3        6  
     0.28738 0.09350-0.04145 0.35200 0.11636 0.13571 0.06714  
 31V  
 0.80377  
     2        3        7        4        6        5        1  
     0.10608 0.09822 0.02765 0.08896 0.06370 0.07566 0.44700  
 35E  
 0.73860  
     6        5        3        2        4        7        1  
     -0.00655 0.07165 0.13693 0.14469 0.08685-0.01144 0.43474  
 35H  
 0.55146  
     1        6        5        4        2        3        7  
     0.22869-0.00632 0.09538 0.12842 0.16139 0.14123-0.12987



35J  
 0.73154  
     7        6        2        5        3        4        1  
     -0.12247-0.04897 0.26620 0.07780 0.19466 0.15925 0.32922  
 35N  
 0.82541  
     4        5        1        3        7        6        2  
     0.13219 0.06909 0.32466 0.13280 0.04270 0.06775 0.21461  
 36M  
 0.82868  
     2        5        6        1        4        3        7  
     0.23460 0.13226 0.05593 0.28541 0.16401 0.21605-0.14076  
 41C  
 0.76695  
     7        5        1        2        4        6        3  
     -0.09928 0.07664 0.35743 0.25264 0.10800 0.05357 0.17552  
 44B  
 0.52442  
     5        1        3        7        4        2        6  
     0.11124 0.19915 0.13329-0.06904 0.13073 0.14056-0.06342  
 44E  
 0.59770  
     2        7        3        1        4        5        6  
     0.17751-0.09388 0.13662 0.22550 0.11679 0.11501 0.02360  
 45B  
 0.73071  
     7        1        2        4        6        5        3  
     -0.11364 0.32770 0.24086 0.11931 0.03693 0.04745 0.20048  
 45D  
 0.76680  
     3        7        4        1        2        5        6  
     0.20815-0.02578 0.16159 0.26959 0.26740 0.01743 0.00034  
 45E  
 0.76417  
     7        5        3        2        6        4        1  
     -0.20842 0.07484 0.24174 0.24435 0.02307 0.22704 0.30527  
 45K  
 0.75166  
     4        1        2        5        6        7        3  
     0.15300 0.29215 0.19037 0.02863 0.01400 0.01081 0.18666  
 45L  
 0.74887  
     3        6        4        1        7        5        2  
     0.22219-0.04484 0.07538 0.37694-0.12374 0.06725 0.25908  
 45N  
 0.67842  
     7        5        1        3        2        6        4  
     -0.02519 0.09860 0.22928 0.18955 0.19625 0.01017 0.11251  
 45T  
 0.63438  
     1        6        2        3        5        4        7  
     0.19496 0.03520 0.19000 0.18300 0.15725 0.15760-0.20537  
 46Z  
 0.54692  
     7        5        2        3        6        4        1  
     -0.18242 0.09026 0.23828 0.12919-0.04446 0.11541 0.29606

51B  
 0.72126  
     7        6        2        1        5        3        4  
 -0.15254-0.03407 0.26359 0.37099 0.07970 0.17079 0.16618  
 51K  
 0.59940  
     4        6        2        1        7        3        5  
 -0.00741-0.18198 0.35567 0.53491-0.22428 0.23729-0.05587  
 51M  
 0.77041  
     4        5        2        6        7        3        1  
 0.12149 0.11300 0.16667 0.10835 0.04007 0.16570 0.19381  
 51R  
 0.84830  
     6        1        2        4        5        3        7  
 0.04285 0.22728 0.22501 0.16845 0.10717 0.21251 0.01739  
 51T  
 0.84472  
     7        5        1        3        4        6        2  
 -0.04038 0.15869 0.19609 0.17650 0.17340 0.15542 0.18673  
 52C  
 0.76343  
     5        2        6        4        7        3        1  
 0.08491 0.21319 0.07619 0.09207 0.03136 0.11093 0.27464  
 52D  
 0.75459  
     2        4        3        7        5        6        1  
 0.18243 0.13919 0.17148-0.08494 0.00308-0.04617 0.47122  
 54B  
 0.49297  
     4        6        1        5        3        2        7  
 0.09659-0.01279 0.19895 0.07171 0.12034 0.14008-0.05848  
 55B  
 0.78229  
     7        5        1        3        4        2        6  
 0.04072 0.11107 0.31583 0.13842 0.11403 0.16308 0.04231  
 55D  
 0.71544  
     2        5        1        3        4        6        7  
 0.16928 0.08406 0.27299 0.15085 0.14388 0.05474-0.03436  
 55G  
 0.73318  
     5        6        4        3        1        2        7  
 0.05796 0.01866 0.11487 0.12366 0.30019 0.25285-0.03280  
 57E  
 0.68811  
     3        2        1        5        6        4        7  
 0.13747 0.14186 0.26232 0.10808 0.06886 0.13119-0.04409  
 62B  
 0.77817  
     6        4        1        5        3        2        7  
 0.07222 0.09220 0.44192 0.07318 0.12783 0.16226-0.09560  
 62E  
 0.81461  
     7        4        1        5        2        6        3  
 -0.02427 0.07365 0.38999 0.07310 0.22710 0.06107 0.15444

62F  
0.83154  
7 5 1 4 3 2 6  
-0.00801 0.04565 0.40468 0.10537 0.16934 0.21433 0.02699

62J  
0.76863  
7 3 1 6 5 4 2  
-0.04435 0.16367 0.35009 0.00329 0.04809 0.16348 0.21650

63B  
0.64620  
6 3 5 2 4 7 1  
0.00107 0.15910 0.12018 0.17343 0.15007-0.02895 0.18631

63D  
0.66944  
7 5 1 3 4 6 2  
-0.05101 0.10552 0.29103 0.14793 0.12170 0.01277 0.17614

63E  
0.80330  
7 5 1 3 2 4 6  
0.00236 0.07644 0.40424 0.10020 0.20693 0.09039 0.05513

63G  
0.75940  
7 4 1 3 6 5 2  
-0.00704 0.08277 0.44842 0.10538 0.02978 0.06515 0.17433

63H  
0.74031  
7 2 1 6 5 3 4  
0.03252 0.10478 0.42160 0.05597 0.07594 0.08873 0.08377

63J  
0.78493  
7 5 1 4 2 6 3  
0.00353 0.10096 0.27145 0.10425 0.20292 0.09707 0.15223

63N  
0.84281  
7 3 1 6 2 4 5  
-0.03980 0.16227 0.39852 0.05360 0.19803 0.14723 0.05709

63S  
0.78089  
7 5 1 2 4 6 3  
0.02391 0.05559 0.35479 0.22512 0.11448 0.03831 0.12745

63T  
0.77041  
7 2 1 3 6 4 5  
-0.03588 0.26254 0.29228 0.12362 0.05132 0.11249 0.10909

63W  
0.79013  
7 3 2 4 6 5 1  
-0.04004 0.16296 0.25714 0.12727 0.05704 0.06957 0.30820

63Y  
0.80247  
7 4 1 3 5 6 2  
0.04834 0.14833 0.21564 0.16049 0.12710 0.05273 0.20598

67N  
0.69968  
7 5 2 4 3 6 1  
-0.01901 0.08429 0.15844 0.12806 0.13497 0.04098 0.30273

67R  
 0.78417  
     6      7      1      5      2      4      3  
     0.06374 0.05394 0.22839 0.12736 0.17351 0.13567 0.14952  
 67T  
 0.40204  
     3      5      4      1      7      6      2  
     0.15200-0.11959 0.10581 0.27776-0.16330-0.13526 0.25494  
 67U  
 0.71672  
     6      4      2      3      5      7      1  
     -0.04120-0.00657 0.34963 0.25494-0.00845-0.14560 0.43647  
 67V  
 0.78248  
     4      2      7      6      5      3      1  
     0.12386 0.15295 0.05516 0.09662 0.12030 0.14981 0.21268  
 67Y  
 0.79818  
     4      1      6      3      2      5      7  
     0.10567 0.35973 0.02100 0.16299 0.17377 0.07359 0.00865  
 68B  
 0.73906  
     5      2      3      4      6      7      1  
     0.08427 0.22369 0.12108 0.11692 0.02914-0.00795 0.28843  
 68D  
 0.77456  
     3      7      2      6      1      4      5  
     0.21682-0.13122 0.23973-0.00762 0.33457 0.12838 0.07159  
 68F  
 0.78276  
     6      4      3      2      5      7      1  
     -0.01535 0.03373 0.04504 0.39726 0.01976-0.02998 0.41652  
 68G  
 0.83881  
     5      1      7      3      4      6      2  
     0.05891 0.35645-0.06942 0.16283 0.11916-0.02083 0.30674  
 68J  
 0.83091  
     6      3      7      2      5      4      1  
     -0.05317 0.19381-0.09252 0.33792 0.02050 0.07130 0.40695  
 68M  
 0.70677  
     4      2      7      5      6      3      1  
     0.10753 0.22350-0.12387 0.08900-0.06786 0.13863 0.36603  
 68N  
 0.71738  
     5      2      7      3      4      6      1  
     -0.00994 0.28001-0.06456 0.19181 0.02471-0.04699 0.37443  
 68Z  
 0.72261  
     7      3      4      2      5      6      1  
     -0.04126 0.12188 0.05772 0.18357 0.00502-0.01687 0.48883  
 71D  
 0.60254  
     7      5      4      1      3      6      2  
     -0.07121 0.05443 0.12579 0.27982 0.15122 0.01631 0.15797

71G  
 0.65472  
     5        3        7        1        6        4        2  
     0.07965 0.13386-0.02770 0.23946-0.00033 0.11919 0.18956  
 71L  
 0.72320  
     4        2        5        3        7        6        1  
     0.01084 0.27760-0.00782 0.23077-0.06022-0.01490 0.33365  
 71M  
 0.79357  
     4        3        5        2        7        6        1  
     0.08201 0.14945 0.00083 0.31770-0.08654-0.05930 0.43179  
 72E  
 0.75957  
     5        2        7        3        6        4        1  
     0.02053 0.21722-0.10215 0.14733 0.00267 0.13243 0.39714  
 72G  
 0.75592  
     6        1        5        2        7        4        3  
     -0.00678 0.30885 0.02833 0.26084-0.02422 0.03258 0.23712  
 73C  
 0.72535  
     5        2        6        3        7        4        1  
     0.01586 0.27379 0.00943 0.18861-0.01951 0.04265 0.29241  
 73D  
 0.71001  
     7        2        6        1        5        4        3  
     -0.04321 0.26252-0.01927 0.27327 0.02274 0.09135 0.19762  
 74B  
 0.77625  
     6        1        5        3        7        4        2  
     -0.02624 0.37941-0.02446 0.16163-0.10033 0.08193 0.35232  
 75B  
 0.63457  
     4        1        5        3        7        6        2  
     0.09985 0.27365 0.09432 0.18681-0.09435-0.05370 0.19495  
 75C  
 0.71635  
     5        3        4        1        7        6        2  
     0.03266 0.15493 0.04001 0.32271-0.05528-0.01643 0.30730  
 75D  
 0.67695  
     7        1        6        2        5        4        3  
     -0.09760 0.27746-0.06812 0.25450 0.04872 0.09618 0.21692  
 75E  
 0.68749  
     7        2        6        3        4        5        1  
     -0.02304 0.23651 0.04248 0.12021 0.08913 0.07525 0.25131  
 75F  
 0.75664  
     7        3        6        5        2        4        1  
     -0.10511 0.24280-0.00689 0.01589 0.24353 0.07399 0.39046  
 76J  
 0.71775  
     5        2        1        3        7        4        6  
     0.08358 0.18352 0.20370 0.16250 0.05449 0.08812 0.07824

76P  
 0.58678  
     7        3        5        2        1        4        6  
 -0.07102 0.13799 0.05931 0.17235 0.20709 0.13312 0.04278  
 76V  
 0.63385  
     5        2        7        4        6        1        3  
 -0.02955 0.29833-0.06690 0.03814-0.03777 0.32754 0.15943  
 76X  
 0.82759  
     4        1        5        2        7        3        6  
 0.11873 0.25790 0.10588 0.23344 0.01640 0.15421 0.07669  
 77F  
 0.59269  
     6        4        3        1        7        5        2  
 -0.03364 0.08563 0.22096 0.29418-0.10796-0.00151 0.23318  
 77W  
 0.61875  
     6        3        1        7        2        5        4  
 0.06003 0.11530 0.22517 0.03991 0.13401 0.06637 0.08918  
 81L  
 0.53121  
     6        3        4        2        7        5        1  
 -0.03795 0.13336 0.00205 0.13417-0.05081-0.02037 0.39125  
 82C  
 0.60890  
     4        2        6        5        3        7        1  
 0.09968 0.13796 0.07924 0.09713 0.11846 0.02174 0.15957  
 88H  
 0.72015  
     3        1        6        2        7        5        4  
 0.13182 0.28530 0.00212 0.20299 0.00179 0.08471 0.09902  
 88M  
 0.52353  
     5        2        7        3        4        6        1  
 0.03099 0.24737-0.08140 0.05245 0.04790-0.00169 0.25239  
 88N  
 0.41970  
     7        2        4        3        6        5        1  
 -0.35179 0.24045 0.16799 0.17148-0.12679-0.04273 0.32605  
 91A  
 0.84527  
     4        2        6        7        3        5        1  
 0.09439 0.30261 0.01067-0.04325 0.10450 0.04731 0.42748  
 91D  
 0.41069  
     7        1        6        2        4        3        5  
 -0.14497 0.29407-0.14409 0.17814 0.03630 0.13052 0.00783  
 91E  
 0.76720  
     3        4        5        7        6        2        1  
 0.13689 0.10793 0.06795-0.02500 0.02995 0.19510 0.35655  
 91F  
 0.66264  
     7        5        3        1        4        6        2  
 -0.01824 0.02174 0.10389 0.37159 0.07251-0.01684 0.23343

91G  
 0.75561  
     1      5      7      4      2      6      3  
     0.28592 0.12691-0.10767 0.13397 0.21841-0.00603 0.18026  
 91K  
 0.73040  
     1      2      7      5      3      4      6  
     0.30016 0.29498-0.11861 0.02282 0.21870 0.12562-0.05131  
 91M  
 0.68935  
     5      3      7      6      1      2      4  
     0.08280 0.14143-0.14671 0.05086 0.33189 0.16545 0.13597  
 91P  
 0.71803  
     7      3      4      2      6      5      1  
     -0.14690 0.12700 0.08967 0.25083-0.05451 0.06048 0.47136  
 91Q  
 0.59551  
     4      2      3      7      5      6      1  
     0.04764 0.21826 0.10079-0.04956 0.02622-0.01806 0.34399  
 91R  
 0.69979  
     7      1      5      3      4      6      2  
     -0.06147 0.28937 0.02521 0.23348 0.06248-0.01000 0.23864  
 91S  
 0.73472  
     5      1      3      7      6      4      2  
     0.07724 0.21949 0.16609 0.05640 0.07709 0.08477 0.18515  
 91T  
 0.62616  
     3      1      2      7      5      6      4  
     0.16784 0.39112 0.34421-0.19625 0.00017-0.09056 0.06712  
 91Z  
 0.40076  
     6      5      2      1      3      4      7  
     -0.06576-0.03517 0.18584 0.33945 0.09714 0.00546-0.07564  
 92A  
 0.55020  
     7      2      6      3      5      4      1  
     -0.01791 0.19374-0.00005 0.14327 0.00034 0.08859 0.20895  
 92G  
 0.74518  
     6      3      7      4      5      2      1  
     -0.03323 0.14475-0.05844 0.11869 0.06411 0.21363 0.38327  
 92M  
 0.86389  
     7      2      5      3      4      6      1  
     -0.03538 0.23480 0.06789 0.16134 0.07245 0.03276 0.45051  
 92R  
 0.65904  
     7      3      6      2      4      5      1  
     0.04137 0.14154 0.05350 0.16743 0.08395 0.07154 0.20915  
 92Y  
 0.58743  
     5      2      4      6      3      7      1  
     -0.08779 0.31750 0.10508-0.11695 0.23676-0.15401 0.33567

93C  
 0.87908  
     6        3        4        2        5        7        1  
 -0.00556 0.20926 0.08115 0.28180 0.00650-0.02181 0.43875  
 93P  
 0.87193  
     5        3        4        2        6        7        1  
 0.09502 0.19377 0.15366 0.25349 0.04329 0.00672 0.27489  
 95B  
 0.74038  
     6        5        1        2        4        7        3  
 0.03977 0.05458 0.31883 0.22017 0.08959-0.04417 0.21322  
 95C  
 0.81320  
     5        7        6        2        4        3        1  
 0.06673-0.08637-0.04121 0.25674 0.11534 0.15884 0.44341  
 96B  
 0.84291  
     7        2        6        4        3        5        1  
 -0.04058 0.30289-0.01098 0.08952 0.12701 0.07016 0.40886  
 96D  
 0.63365  
     5        1        7        3        6        2        4  
 0.06502 0.28437-0.06172 0.13591 0.03882 0.15531 0.08291  
 96R  
 0.72648  
     7        1        5        3        4        6        2  
 -0.13794 0.49947 0.04860 0.19190 0.08030-0.12959 0.20600  
 97B  
 0.78101  
     1        2        4        3        5        7        6  
 0.33422 0.28434 0.13413 0.23648 0.01186-0.09906-0.02100  
 98C  
 0.67624  
     3        2        4        1        6        5        7  
 0.12995 0.18339 0.07772 0.32568 0.04080 0.04275-0.02811  
 98G  
 0.71898  
     7        2        5        3        6        4        1  
 -0.03825 0.18127 0.09254 0.14304 0.05782 0.10317 0.29943  
 98H  
 0.80189  
     5        3        7        6        2        4        1  
 0.05361 0.13732-0.06873-0.01061 0.16431 0.09114 0.51176  
 98Z  
 0.59433  
     7        6        4        1        2        5        3  
 -0.31840-0.15086 0.11140 0.37803 0.36072 0.03006 0.25252



## APPENDIX C

**Table C**  
**Uncorrected and Corrected ASVAB Test Validities<sup>1</sup> for Sample A**

11B							
Uncrr	Atten	Army	Youth	STD	MEAN		
0.2482	0.2714	0.2682	0.4413	7.6451	52.3708	GS	
0.2326	0.2453	0.2531	0.4402	6.9045	51.7442	AR	
0.1991	0.1830	0.2423	0.3887	7.5292	54.1845	AS	
0.2499	0.2727	0.2557	0.4239	7.8695	50.5515	MK	
0.2543	0.2415	0.2908	0.4313	7.4347	54.8159	MC	
0.2313	0.2393	0.2612	0.4257	7.9606	52.1850	EI	
0.2379	0.2700	0.2381	0.4201	5.8751	52.6878	VE	
1.0000	1.0000	1.0000	1.0000	1.0046	-0.0082	SQT	
11C							
Uncrr	Atten	Army	Youth	STD	MEAN		
0.3019	0.3220	0.3317	0.5408	7.5457	53.1411	GS	
0.3168	0.3232	0.3469	0.5566	6.7591	52.7312	AR	
0.2738	0.2463	0.3328	0.4897	7.4522	55.0842	AS	
0.3071	0.3386	0.3062	0.5143	8.0428	51.4208	MK	
0.3235	0.3045	0.3730	0.5330	7.4532	55.6439	MC	
0.3126	0.3236	0.3422	0.5305	8.0564	53.0221	EI	
0.3108	0.3361	0.3088	0.5263	5.6620	53.4494	VE	
1.0000	1.0000	1.0000	1.0000	1.0230	-0.0381	SQT	
11H							
Uncrr	Atten	Army	Youth	STD	MEAN		
0.3246	0.3757	0.3587	0.5290	7.7077	53.3352	GS	
0.3196	0.3584	0.3560	0.5365	6.9941	53.5393	AR	
0.2656	0.2586	0.3460	0.4859	7.5947	55.3704	AS	
0.3410	0.4109	0.3566	0.5211	8.2752	51.5536	MK	
0.3304	0.3337	0.3890	0.5260	7.5284	56.1216	MC	
0.2996	0.3344	0.3426	0.5106	8.1780	53.2987	EI	
0.3094	0.3615	0.3079	0.4841	5.7588	53.6748	VE	
1.0000	1.0000	1.0000	1.0000	0.9996	-0.0092	SQT	
11M							
Uncrr	Atten	Army	Youth	STD	MEAN		
0.2579	0.2861	0.2795	0.4593	7.7139	52.3837	GS	
0.2510	0.2652	0.2808	0.4637	6.8807	52.1635	AR	
0.2403	0.2306	0.2878	0.4250	7.8142	54.6319	AS	
0.2384	0.2668	0.2435	0.4254	8.0253	50.5383	MK	
0.2758	0.2779	0.3169	0.4587	7.8415	54.9301	MC	
0.2484	0.2685	0.2802	0.4468	8.2665	52.3819	EI	
0.2431	0.2724	0.2499	0.4343	5.7676	52.8606	VE	
1.0000	1.0000	1.0000	1.0000	0.9810	0.0287	SQT	

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<sup>1</sup> Columns represent respectively uncorrected validities, validities corrected for criterion unreliability, validities corrected for Army input into MOS samples, and corrected to the youth population.

12B							
Uncrrr	Atten	Army	Youth	STD	MEAN		
0.3266	0.3762	0.3411	0.5375	8.0074	51.9605	GS	
0.3032	0.3279	0.3361	0.5444	7.0414	51.7651	AR	
0.2340	0.2207	0.2750	0.4418	7.6800	54.3682	AS	
0.3346	0.3747	0.3421	0.5312	8.0270	50.4038	MK	
0.3315	0.3321	0.3649	0.5167	7.7960	54.5762	MC	
0.2979	0.3127	0.3224	0.5076	8.0277	51.8624	EI	
0.3150	0.3592	0.3152	0.5244	5.8688	52.2705	VE	
1.0000	1.0000	1.0000	1.0000	1.0179	0.0118	SQT	

12C							
Uncrrr	Atten	Army	Youth	STD	MEAN		
0.3465	0.4128	0.3664	0.5706	8.1356	50.7639	GS	
0.3284	0.3474	0.3773	0.5828	6.7653	51.4633	AR	
0.2871	0.2819	0.3479	0.5055	7.8524	55.1960	AS	
0.3486	0.4022	0.3620	0.5571	8.1227	49.6269	MK	
0.3869	0.4159	0.4309	0.5779	8.2147	54.3018	MC	
0.3369	0.3676	0.3651	0.5514	8.1945	51.6125	EI	
0.3286	0.3979	0.3305	0.5446	6.1213	51.6615	VE	
1.0000	1.0000	1.0000	1.0000	1.0040	-0.0100	SQT	

12F							
Uncrrr	Atten	Army	Youth	STD	MEAN		
0.2888	0.3058	0.3062	0.5648	7.3609	50.5560	GS	
0.2926	0.3031	0.3784	0.6115	6.7442	50.9061	AR	
0.3998	0.3849	0.4911	0.6139	7.8384	55.3574	AS	
0.3086	0.3205	0.3389	0.5742	7.4456	48.7292	MK	
0.3549	0.3409	0.4469	0.6108	7.4748	53.9964	MC	
0.3248	0.3611	0.3873	0.5927	8.5014	51.5812	EI	
0.3339	0.3787	0.3477	0.6013	5.8365	51.5668	VE	
1.0000	1.0000	1.0000	1.0000	1.0212	0.0763	SQT	

13B							
Uncrrr	Atten	Army	Youth	STD	MEAN		
0.3094	0.3730	0.2857	0.4350	8.2825	48.8910	GS	
0.3333	0.3777	0.3259	0.4706	7.2920	49.8906	AR	
0.3259	0.3894	0.2787	0.4056	9.6131	50.3222	AS	
0.2995	0.3084	0.3005	0.4415	7.2949	48.6982	MK	
0.3728	0.4346	0.3708	0.4808	8.9652	50.5141	MC	
0.3083	0.3559	0.2869	0.4328	8.7239	49.2558	EI	
0.3015	0.3687	0.2580	0.4046	6.2185	50.4151	VE	
1.0000	1.0000	1.0000	1.0000	1.0052	-0.0058	SQT	

13C							
Uncrrr	Atten	Army	Youth	STD	MEAN		
0.3090	0.2615	0.4345	0.6779	5.8683	54.6949	GS	
0.3518	0.4330	0.3797	0.6534	7.9897	53.0997	AR	
0.3764	0.3747	0.4341	0.6018	8.0838	53.8731	AS	
0.3840	0.4280	0.3788	0.6260	7.9659	53.4622	MK	
0.4309	0.4060	0.5079	0.6666	7.3115	56.1450	MC	
0.3433	0.3416	0.4397	0.6493	7.5876	53.3263	EI	
0.3399	0.3163	0.4173	0.6797	4.7753	53.8187	VE	
1.0000	1.0000	1.0000	1.0000	0.9534	0.0840	SQT	

## 13E

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3878	0.4414	0.3860	0.6390	7.8891	53.0735	GS
0.4615	0.4549	0.5140	0.7249	6.3984	53.9299	AR
0.3038	0.3322	0.2632	0.4742	8.8764	53.2364	AS
0.4313	0.4660	0.4708	0.6857	7.7235	54.0588	MK
0.3728	0.3572	0.3763	0.5687	7.4357	56.2704	MC
0.3988	0.4389	0.3683	0.5966	8.3914	52.9796	EI
0.4121	0.4699	0.4119	0.6832	5.8508	53.5271	VE
1.0000	1.0000	1.0000	1.0000	0.9910	0.0037	SQT

## 13F

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3576	0.3925	0.3768	0.5733	7.6760	53.2176	GS
0.3433	0.3167	0.3924	0.5960	6.0420	54.4865	AR
0.2748	0.2793	0.2908	0.4561	8.3250	54.7369	AS
0.2942	0.2865	0.3515	0.5575	7.0219	53.7178	MK
0.2806	0.2440	0.3390	0.5057	6.8064	57.2276	MC
0.3173	0.3511	0.3346	0.5285	8.5136	53.1853	EI
0.3562	0.3972	0.3657	0.5743	5.7714	53.2419	VE
1.0000	1.0000	1.0000	1.0000	1.0013	-0.0129	SQT

## 13M

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2147	0.1923	0.2775	0.4720	6.4063	54.0364	GS
0.2897	0.3083	0.3250	0.5135	7.1297	52.4510	AR
0.0438	0.0352	0.1688	0.3337	6.7365	57.3529	AS
0.3030	0.3341	0.3248	0.5051	8.1322	51.5238	MK
0.2068	0.1488	0.2811	0.4303	5.7644	57.6835	MC
0.2479	0.2206	0.2966	0.4610	7.0054	54.5826	EI
0.2278	0.1910	0.2903	0.4977	4.4394	54.0532	VE
1.0000	1.0000	1.0000	1.0000	0.9945	-0.0214	SQT

## 13N

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2518	0.2701	0.3322	0.5429	7.0981	53.4263	GS
0.3040	0.3668	0.3612	0.5728	7.4784	53.0112	AR
0.1517	0.1335	0.2715	0.4399	6.8222	56.8582	AS
0.3167	0.3557	0.3612	0.5590	7.6647	50.7402	MK
0.2259	0.2082	0.3338	0.4995	6.8268	56.0932	MC
0.2328	0.2251	0.3244	0.5167	7.0375	53.9442	EI
0.2516	0.2777	0.3310	0.5551	5.4062	53.1100	VE
1.0000	1.0000	1.0000	1.0000	1.0114	-0.0155	SQT

## 13R

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2144	0.2393	0.3309	0.6117	7.7613	51.9265	GS
0.2561	0.2753	0.3409	0.6222	6.9997	52.4081	AR
0.1912	0.1592	0.3562	0.5484	6.7803	56.2463	AS
0.2306	0.2440	0.2775	0.5587	7.5850	50.6985	MK
0.2782	0.2983	0.3976	0.5949	8.3452	53.5551	MC
0.2005	0.2017	0.3321	0.5805	7.6931	52.5699	EI
0.1756	0.1714	0.3407	0.6379	5.0246	52.5184	VE
1.0000	1.0000	1.0000	1.0000	0.9562	0.0230	SQT

## 14D

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3190	0.3441	0.4525	0.6931	7.1390	53.3185	GS
0.4346	0.5136	0.5360	0.7384	7.3238	52.0860	AR
0.3189	0.2891	0.4896	0.6357	7.0253	54.9809	AS
0.3117	0.3553	0.3596	0.6243	7.7763	51.1656	MK
0.2999	0.2804	0.4465	0.6381	6.9240	55.7006	MC
0.2800	0.3135	0.3897	0.6313	8.1506	52.6688	EI
0.2492	0.2585	0.4069	0.6662	5.0809	53.4841	VE
1.0000	1.0000	1.0000	1.0000	0.8387	0.0893	SQT

## 15E

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3066	0.3465	0.3491	0.4150	7.6464	53.5340	GS
0.2607	0.3214	0.2632	0.3506	7.8108	53.8544	AR
0.2430	0.2005	0.3539	0.4227	6.5389	54.5728	AS
0.2990	0.3456	0.2993	0.3655	8.0645	53.4757	MK
0.1920	0.1721	0.2267	0.3276	6.7887	55.6699	MC
0.3271	0.3383	0.3770	0.4384	7.6962	53.5243	EI
0.1321	0.1420	0.1625	0.2294	5.3801	53.7670	VE
1.0000	1.0000	1.0000	1.0000	0.9687	0.0614	SQT

## 16E

Uncrr	Atten	Army	Youth	STD	MEAN	
0.4024	0.4514	0.4416	0.6613	7.5904	52.7430	GS
0.4559	0.5761	0.4665	0.6800	8.0082	52.8452	AR
0.1919	0.1715	0.3012	0.5014	7.0803	55.9814	AS
0.4107	0.5128	0.4101	0.6280	8.7099	51.1176	MK
0.2778	0.2598	0.3522	0.5537	7.0834	55.2601	MC
0.2956	0.3154	0.3518	0.5798	7.9412	53.2477	EI
0.3188	0.3630	0.3512	0.6088	5.7024	53.0402	VE
1.0000	1.0000	1.0000	1.0000	0.9692	-0.0424	SQT

## 16J

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2550	0.2821	0.3948	0.5967	7.4862	52.6667	GS
0.3904	0.4761	0.4944	0.6583	7.7271	52.4872	AR
0.0967	0.0832	0.3639	0.5480	6.8194	56.8333	AS
0.4080	0.4698	0.5216	0.6487	8.0332	50.6795	MK
0.3717	0.3061	0.5479	0.6778	6.2358	54.1538	MC
0.2965	0.2519	0.4540	0.6231	6.3234	52.7436	EI
0.1222	0.1416	0.2476	0.4749	5.8056	51.5513	VE
1.0000	1.0000	1.0000	1.0000	1.0634	-0.0098	SQT

## 16P

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2548	0.2552	0.3854	0.5996	6.6273	54.1319	GS
0.3128	0.3711	0.4029	0.6145	7.3539	53.3189	AR
0.2957	0.2426	0.4812	0.6130	6.3596	56.6063	AS
0.3225	0.3814	0.3783	0.5814	8.0698	51.9862	MK
0.2952	0.2470	0.4709	0.6233	6.1976	56.8937	MC
0.2797	0.3066	0.4252	0.6103	7.9786	54.2913	EI
0.2238	0.2158	0.3468	0.5663	4.7236	54.3681	VE
1.0000	1.0000	1.0000	1.0000	0.9724	0.0324	SQT

## 16R

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2845	0.3323	0.3358	0.4867	7.7294	52.4603	GS
0.3919	0.5017	0.4400	0.5587	7.9329	51.2144	AR
0.2402	0.2172	0.3670	0.4875	7.0083	56.3504	AS
0.3327	0.3947	0.3596	0.4970	8.0957	49.8542	MK
0.3155	0.2895	0.4177	0.5352	6.7951	55.4287	MC
0.3120	0.3232	0.3989	0.5299	7.5423	53.3917	EI
0.2339	0.2889	0.2648	0.4096	6.0490	52.3993	VE
1.0000	1.0000	1.0000	1.0000	0.9782	0.0227	SQT

## 16S

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3571	0.4295	0.3504	0.5628	7.9601	50.6742	GS
0.4104	0.5183	0.3868	0.5888	7.8249	49.7852	AR
0.3714	0.4060	0.3568	0.5129	8.4713	51.5794	AS
0.3545	0.4194	0.3207	0.5324	8.0721	48.6877	MK
0.3948	0.4707	0.3939	0.5560	8.8295	51.9350	MC
0.3669	0.4318	0.3531	0.5468	8.5667	50.3529	EI
0.3368	0.3676	0.3147	0.5361	5.3450	52.1688	VE
1.0000	1.0000	1.0000	1.0000	0.9978	0.0228	SQT

## 19D

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3807	0.4473	0.3745	0.5725	8.1699	53.1007	GS
0.3549	0.3821	0.3705	0.5796	7.0104	52.5198	AR
0.3482	0.3353	0.3788	0.5259	7.8408	54.9362	AS
0.3339	0.3778	0.2998	0.5192	8.1120	51.1324	MK
0.3808	0.3901	0.4102	0.5629	7.9722	55.2627	MC
0.3912	0.4248	0.4018	0.5763	8.3051	53.2953	EI
0.3868	0.4512	0.3644	0.5640	6.0025	53.3682	VE
1.0000	1.0000	1.0000	1.0000	0.9908	0.0307	SQT

## 19E

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3808	0.4189	0.3888	0.5896	7.7370	52.5406	GS
0.3178	0.3278	0.3483	0.5753	6.7949	52.6071	AR
0.3303	0.3187	0.3588	0.5194	7.9482	54.6709	AS
0.3343	0.3670	0.3346	0.5461	7.9634	50.6572	MK
0.3737	0.3667	0.4130	0.5689	7.7258	55.0442	MC
0.3753	0.3986	0.3978	0.5786	8.2172	52.7407	EI
0.3764	0.4181	0.3615	0.5724	5.7825	52.8933	VE
1.0000	1.0000	1.0000	1.0000	0.9933	-0.0042	SQT

## 19K

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.4246	0.4732	0.4366	0.6345	7.8390	52.7772	GS
0.4068	0.4250	0.4315	0.6380	6.8827	52.8571	AR
0.3735	0.3581	0.4258	0.5776	7.9000	54.8611	AS
0.3731	0.4086	0.3606	0.5761	7.9421	51.1941	MK
0.4266	0.4316	0.4650	0.6193	7.9650	55.3309	MC
0.4160	0.4405	0.4465	0.6259	8.1920	53.1146	EI
0.4084	0.4654	0.3823	0.5899	5.9324	52.9978	VE
1.0000	1.0000	1.0000	1.0000	0.9555	0.0072	SQT

24Z							
Uncrrr	Atten	Army	Youth	STD	MEAN		
0.0834	0.0650	0.2467	0.4173	5.3536	57.4624	GS	
0.1565	0.1331	0.3111	0.4704	5.4714	58.0549	AR	
0.1534	0.1326	0.2827	0.4131	6.9568	58.6474	AS	
0.1483	0.1298	0.2858	0.4405	6.2005	58.0173	MK	
0.1868	0.1631	0.3322	0.4588	6.7151	59.3353	MC	
0.2148	0.1733	0.3748	0.4987	6.0976	60.1156	EI	
0.1212	0.0993	0.2424	0.4103	4.1663	55.8035	VE	
1.0000	1.0000	1.0000	1.0000	1.0952	-0.0946	SQT	

25M							
Uncrrr	Atten	Army	Youth	STD	MEAN		
0.2253	0.2114	0.4177	0.6082	6.0045	54.8309	GS	
0.4253	0.5349	0.5321	0.6859	7.5375	53.9614	AR	
0.2587	0.2829	0.3138	0.4794	8.1950	50.6232	AS	
0.4375	0.5103	0.5411	0.6837	7.6959	53.5749	MK	
0.3311	0.3253	0.4891	0.6157	7.0352	55.2222	MC	
0.2959	0.3117	0.4377	0.6006	7.4135	52.3623	EI	
0.2319	0.2173	0.3707	0.5756	4.4371	55.2222	VE	
1.0000	1.0000	1.0000	1.0000	0.9400	0.0594	SQT	

25S							
Uncrrr	Atten	Army	Youth	STD	MEAN		
0.3513	0.3107	0.4963	0.7279	6.0399	56.4134	GS	
0.3845	0.4378	0.3810	0.6772	7.2818	54.4525	AR	
0.4263	0.4158	0.4468	0.6051	7.8019	54.5084	AS	
0.3191	0.3526	0.4032	0.6628	7.7817	54.3520	MK	
0.3977	0.3940	0.4879	0.6535	7.5717	57.0168	MC	
0.4707	0.5352	0.5266	0.7026	8.5410	54.1508	EI	
0.3764	0.3065	0.5063	0.7580	4.1160	56.2291	VE	
1.0000	1.0000	1.0000	1.0000	1.0275	0.1199	SQT	

25Z							
Uncrrr	Atten	Army	Youth	STD	MEAN		
0.2675	0.2988	0.2519	0.3696	7.5583	53.6725	GS	
0.3285	0.4205	0.3097	0.4158	8.1095	52.7018	AR	
0.1944	0.2090	0.0997	0.2360	8.5181	50.8246	AS	
0.3242	0.3707	0.3414	0.4278	7.9781	52.3099	MK	
0.2790	0.2995	0.2774	0.3727	8.1288	52.9298	MC	
0.2936	0.3530	0.2911	0.3882	8.9488	51.7953	EI	
0.2247	0.2612	0.1727	0.3007	5.8197	54.0877	VE	
1.0000	1.0000	1.0000	1.0000	1.0850	0.0138	SQT	

27E							
Uncrrr	Atten	Army	Youth	STD	MEAN		
0.1226	0.1163	0.2250	0.4747	6.5163	52.9080	GS	
0.2406	0.2355	0.3136	0.5419	6.2974	53.5254	AR	
0.1019	0.1135	0.1494	0.3538	8.9658	53.1792	AS	
0.1891	0.1924	0.2697	0.4974	7.2096	52.4310	MK	
0.2387	0.2404	0.3027	0.4761	7.7443	53.4044	MC	
0.1932	0.1775	0.2799	0.4824	6.9406	53.7433	EI	
0.2197	0.2366	0.2773	0.5373	5.4745	52.0242	VE	
1.0000	1.0000	1.0000	1.0000	1.0197	0.0062	SQT	

## 27Z

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3182	0.2845	0.4221	0.6465	6.1436	56.4325	GS
0.3489	0.3195	0.4617	0.6768	5.8916	57.4008	AR
0.3379	0.3275	0.3890	0.5625	7.7996	57.0833	AS
0.3414	0.3255	0.4491	0.6488	6.7534	55.9048	MK
0.3590	0.3323	0.4618	0.6269	7.1183	57.8492	MC
0.2670	0.2541	0.4077	0.6158	7.1899	57.2857	EI
0.2862	0.3094	0.3698	0.6159	5.4972	54.6270	VE
1.0000	1.0000	1.0000	1.0000	0.9946	0.0986	SQT

## 29V

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3279	0.2742	0.4306	0.6496	5.8136	58.6122	GS
0.3053	0.2316	0.3880	0.6375	4.9393	59.7066	AR
0.2553	0.2345	0.3524	0.5176	7.4814	58.4413	AS
0.2734	0.2203	0.3557	0.6042	5.7774	60.3648	MK
0.3059	0.2682	0.4368	0.5944	6.8235	60.0179	MC
0.2135	0.1853	0.3424	0.5676	6.6382	59.5740	EI
0.3822	0.3491	0.4725	0.6974	4.7009	56.7449	VE
1.0000	1.0000	1.0000	1.0000	1.0104	-0.0008	SQT

## 29Z

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3089	0.2934	0.4381	0.6728	6.5261	56.1608	GS
0.2829	0.2444	0.4212	0.6755	5.5579	57.1156	AR
0.1960	0.1736	0.2010	0.4367	7.1252	57.1859	AS
0.2309	0.2226	0.3810	0.6339	6.8296	55.5377	MK
0.2712	0.2563	0.4065	0.5838	7.2684	57.1156	MC
0.1753	0.1605	0.3066	0.5587	6.9181	57.3065	EI
0.3627	0.3775	0.4575	0.7157	5.2925	54.3317	VE
1.0000	1.0000	1.0000	1.0000	1.0254	-0.1016	SQT

## 31C

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2841	0.2673	0.4010	0.6035	6.5413	54.5128	GS
0.3007	0.2914	0.4159	0.6270	6.3107	54.4720	AR
0.1517	0.1281	0.3493	0.5130	6.8772	55.7625	AS
0.3346	0.3729	0.4009	0.6009	7.9894	53.0829	MK
0.2457	0.1900	0.4162	0.5729	6.0179	57.1424	MC
0.2950	0.2929	0.4131	0.5943	7.5926	54.3548	EI
0.2650	0.2363	0.3901	0.6022	4.5902	55.0751	VE
1.0000	1.0000	1.0000	1.0000	1.0073	-0.0270	SQT

## 31K

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3240	0.3314	0.4026	0.5949	6.8544	51.3930	GS
0.3094	0.3348	0.3710	0.5850	6.7931	51.2640	AR
0.3375	0.3801	0.3599	0.5177	8.8396	50.8281	AS
0.3165	0.3452	0.3628	0.5611	7.5374	50.0960	MK
0.3841	0.4516	0.4299	0.5783	8.8202	51.5445	MC
0.3198	0.3347	0.3969	0.5754	7.7166	51.3604	EI
0.3222	0.3682	0.3626	0.5656	5.6700	51.8597	VE
1.0000	1.0000	1.0000	1.0000	1.0092	0.0009	SQT



31L							
Uncrrr	Atten	Army	Youth	STD	MEAN		
0.2677	0.2491	0.3599	0.5447	6.5809	50.3690	GS	
0.3374	0.3272	0.3782	0.5677	6.4248	51.1267	AR	
0.3932	0.4487	0.3738	0.5110	9.4565	49.4636	AS	
0.2816	0.2593	0.3384	0.5288	6.7162	49.8045	MK	
0.3894	0.4405	0.4086	0.5492	8.9586	50.3417	MC	
0.3391	0.3271	0.3988	0.5603	7.5067	50.2541	EI	
0.3119	0.3265	0.3505	0.5345	5.4811	51.7733	VE	
1.0000	1.0000	1.0000	1.0000	1.0335	0.0121	SQT	

31N							
Uncrrr	Atten	Army	Youth	STD	MEAN		
0.2354	0.2001	0.4442	0.6594	5.8389	55.7669	GS	
0.2051	0.1556	0.4288	0.6610	4.8820	57.2209	AR	
0.2315	0.2454	0.3369	0.5279	8.5316	53.1196	AS	
0.2109	0.1682	0.4352	0.6414	5.6499	57.6994	MK	
0.2794	0.2488	0.4610	0.6223	6.8462	56.0215	MC	
0.1656	0.1469	0.3909	0.6033	6.7013	55.8160	EI	
0.1988	0.1723	0.3963	0.6364	4.4062	55.6319	VE	
1.0000	1.0000	1.0000	1.0000	1.0093	0.0059	SQT	

31P							
Uncrrr	Atten	Army	Youth	STD	MEAN		
0.0428	0.0386	0.1240	0.2534	6.1894	51.1429	GS	
0.0300	0.0263	0.1197	0.2569	5.6380	52.5830	AR	
0.1486	0.1583	0.1985	0.2811	8.5696	49.1390	AS	
0.1194	0.1018	0.2000	0.3038	6.0379	51.9073	MK	
0.1204	0.1325	0.1758	0.2719	8.4570	50.1042	MC	
0.1825	0.1837	0.2645	0.3426	7.6061	51.2780	EI	
0.0551	0.0614	0.1364	0.2693	5.6679	51.1351	VE	
1.0000	1.0000	1.0000	1.0000	1.0837	-0.0283	SQT	

31Q							
Uncrrr	Atten	Army	Youth	STD	MEAN		
0.2158	0.1945	0.3199	0.5116	6.1912	53.9439	GS	
0.2999	0.2931	0.3887	0.5647	6.2882	53.6947	AR	
0.2879	0.3071	0.3329	0.4887	8.5809	53.2617	AS	
0.2668	0.2581	0.3491	0.5203	6.8526	52.8022	MK	
0.3318	0.3565	0.4071	0.5499	8.2616	54.7726	MC	
0.3068	0.2980	0.4136	0.5661	7.3415	54.2913	EI	
0.1884	0.1898	0.2761	0.4716	5.1223	53.1215	VE	
1.0000	1.0000	1.0000	1.0000	1.0349	-0.0385	SQT	

31R							
Uncrrr	Atten	Army	Youth	STD	MEAN		
0.3036	0.2812	0.4342	0.6513	6.3629	53.4828	GS	
0.3307	0.3358	0.4319	0.6604	6.5332	52.9548	AR	
0.3074	0.3246	0.3741	0.5476	8.4973	52.1099	AS	
0.2803	0.2906	0.3757	0.6072	7.3456	52.5072	MK	
0.3403	0.3614	0.4224	0.5968	8.1671	53.7104	MC	
0.3131	0.2967	0.4439	0.6344	7.1607	53.5593	EI	
0.3260	0.3469	0.4068	0.6402	5.4115	53.1659	VE	
1.0000	1.0000	1.0000	1.0000	1.0089	-0.0197	SQT	

## 31S

Uncrr	Atten	Army	Youth	STD	MEAN	
0.0922	0.0427	0.4080	0.6837	3.1839	61.1266	GS
0.1744	0.0921	0.4883	0.7397	3.3972	60.7642	AR
0.0864	0.0763	0.2599	0.4889	7.1118	58.3450	AS
0.1941	0.0992	0.5349	0.7431	3.6196	62.7293	MK
0.0901	0.0635	0.3820	0.5855	5.4230	61.7467	MC
0.0440	0.0279	0.3578	0.6113	4.7967	62.7424	EI
0.2265	0.1464	0.4710	0.7661	3.2859	58.3188	VE
1.0000	1.0000	1.0000	1.0000	0.9828	-0.0654	SQT

## 31V

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2620	0.2461	0.3739	0.5914	6.3355	53.7360	GS
0.2842	0.2807	0.3918	0.6123	6.2407	53.3081	AR
0.2985	0.3103	0.3653	0.5232	8.2111	53.6122	AS
0.2710	0.2780	0.3692	0.5826	7.1361	53.3365	MK
0.2984	0.3055	0.3907	0.5588	7.7303	54.6421	MC
0.2726	0.2733	0.4008	0.5877	7.4395	54.8102	EI
0.2836	0.2981	0.3658	0.5935	5.2462	53.2853	VE
1.0000	1.0000	1.0000	1.0000	0.9804	0.0190	SQT

## 35E

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2306	0.2067	0.3684	0.6174	6.1598	57.3681	GS
0.3724	0.3136	0.5249	0.7135	5.4189	58.0830	AR
0.2358	0.2174	0.3349	0.4976	7.4203	57.9021	AS
0.3036	0.2714	0.4504	0.6686	6.3314	57.5404	MK
0.2136	0.1900	0.3405	0.5356	6.8396	58.8745	MC
0.1948	0.1743	0.3219	0.5565	6.7614	59.0234	EI
0.2727	0.2627	0.3981	0.6594	4.9002	55.3702	VE
1.0000	1.0000	1.0000	1.0000	1.0381	-0.0102	SQT

## 35H

Uncrr	Atten	Army	Youth	STD	MEAN	
0.0958	0.0506	0.3029	0.5769	3.6275	60.8039	GS
0.1580	0.0817	0.3849	0.6373	3.3270	61.0588	AR
-0.0501	-0.0424	0.0988	0.3410	6.8109	58.9804	AS
0.1523	0.1070	0.3535	0.6077	4.9780	62.2484	MK
-0.0137	-0.0102	0.1417	0.3971	5.7196	61.7778	MC
-0.0045	-0.0025	0.2298	0.4897	4.2811	62.6275	EI
0.1675	0.1296	0.3516	0.6558	3.9333	58.0523	VE
1.0000	1.0000	1.0000	1.0000	1.1035	-0.1114	SQT

## 35J

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2236	0.1596	0.5202	0.7182	4.9022	57.7332	GS
0.2074	0.1499	0.4997	0.7263	4.6492	58.6429	AR
0.1675	0.1505	0.3423	0.5302	7.2318	57.9223	AS
0.2671	0.2204	0.5280	0.7232	5.8441	57.5126	MK
0.2081	0.1727	0.4334	0.6053	6.3824	58.4958	MC
0.1849	0.1375	0.4764	0.6642	5.6180	58.9916	EI
0.2760	0.2427	0.5091	0.7324	4.4724	55.7584	VE
1.0000	1.0000	1.0000	1.0000	1.0564	-0.0686	SQT

35N

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2292	0.2124	0.3550	0.6379	6.3662	53.5221	GS
0.3019	0.2852	0.4112	0.6808	6.0785	54.7198	AR
0.2146	0.2179	0.2346	0.4589	8.1699	53.5221	AS
0.2019	0.1696	0.3429	0.6266	5.9488	55.0737	MK
0.3072	0.3086	0.3640	0.5640	7.7249	55.1976	MC
0.2356	0.2118	0.3553	0.5935	6.7953	55.0295	EI
0.3737	0.3922	0.4546	0.7402	5.3380	53.2596	VE
1.0000	1.0000	1.0000	1.0000	1.0173	-0.0524	SQT

36M

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2599	0.2416	0.3966	0.5748	6.3851	52.0940	GS
0.2051	0.1796	0.3628	0.5551	5.6322	53.2459	AR
0.3659	0.4029	0.4536	0.5731	8.8613	50.2586	AS
0.1454	0.1390	0.3290	0.5199	6.7702	52.7197	MK
0.3154	0.3365	0.4294	0.5718	8.2061	51.8915	MC
0.2604	0.2358	0.4197	0.5785	6.8411	52.4882	EI
0.2136	0.2479	0.3346	0.5152	5.9001	52.1230	VE
1.0000	1.0000	1.0000	1.0000	0.9894	-0.0362	SQT

41C

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2736	0.2423	0.3735	0.5886	6.0837	50.5466	GS
0.3691	0.4593	0.3959	0.6091	8.0071	49.5031	AR
0.2277	0.2090	0.3350	0.4976	7.3854	52.0062	AS
0.2987	0.3012	0.3704	0.5797	7.1424	49.5155	MK
0.2945	0.3297	0.3452	0.5243	8.6088	50.1615	MC
0.1915	0.1699	0.3166	0.5308	6.7039	52.1180	EI
0.2860	0.3518	0.3416	0.5744	6.2559	49.9627	VE
1.0000	1.0000	1.0000	1.0000	1.0220	-0.0595	SQT

44B

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3349	0.3091	0.4672	0.6636	6.4544	51.5052	GS
0.3505	0.3785	0.3805	0.6259	7.0728	50.0291	AR
0.4177	0.3869	0.4560	0.5969	7.5862	56.3721	AS
0.3325	0.3047	0.3850	0.6081	6.6075	48.3721	MK
0.4280	0.4664	0.4829	0.6304	8.5299	54.0395	MC
0.3523	0.3300	0.4413	0.6291	7.2059	52.5114	EI
0.3865	0.3804	0.4592	0.6627	5.0953	51.9085	VE
1.0000	1.0000	1.0000	1.0000	1.0059	-0.0537	SQT

44E

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3842	0.3255	0.5764	0.7615	5.8906	54.0772	GS
0.4903	0.4963	0.5841	0.7790	6.5903	53.6471	AR
0.3294	0.2314	0.5023	0.6502	5.7208	60.3676	AS
0.4693	0.4571	0.5816	0.7562	6.9833	52.4669	MK
0.4866	0.4254	0.6174	0.7374	6.8041	58.0809	MC
0.4442	0.3850	0.5817	0.7424	6.6290	56.4301	EI
0.3877	0.3960	0.5259	0.7326	5.2563	53.0515	VE
1.0000	1.0000	1.0000	1.0000	0.9864	-0.0333	SQT

## 45B

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3721	0.3997	0.4173	0.6349	7.3813	53.7438	GS
0.3681	0.4537	0.3597	0.6128	7.9308	50.9004	AR
0.4741	0.4502	0.4830	0.6157	7.6411	56.4947	AS
0.3354	0.3803	0.3113	0.5636	8.0314	49.8007	MK
0.5100	0.5801	0.5259	0.6616	8.7473	54.6868	MC
0.3769	0.3943	0.3996	0.6064	7.9064	54.0178	EI
0.4769	0.5806	0.4559	0.6665	6.1913	52.6797	VE
1.0000	1.0000	1.0000	1.0000	1.0439	-0.0001	SQT

## 45D

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2703	0.2343	0.4927	0.6716	5.9565	53.1615	GS
0.3135	0.3853	0.4180	0.6374	7.9080	51.1269	AR
0.2397	0.1901	0.4384	0.5879	6.3841	58.1654	AS
0.3150	0.3218	0.4474	0.6340	7.2375	49.2654	MK
0.3356	0.3346	0.4649	0.6177	7.6666	55.8385	MC
0.1804	0.1443	0.4802	0.6483	6.0438	55.4654	EI
0.2387	0.2463	0.4127	0.6112	5.2472	52.4115	VE
1.0000	1.0000	1.0000	1.0000	0.9280	0.0417	SQT

## 45E

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3044	0.3242	0.3199	0.4279	7.3609	50.2908	GS
0.3413	0.3903	0.3353	0.4476	7.4036	50.3825	AR
0.2233	0.2019	0.2762	0.3878	7.3203	55.6534	AS
0.3065	0.3370	0.3055	0.4156	7.8353	49.7251	MK
0.2834	0.2635	0.3237	0.4254	7.1934	55.0876	MC
0.2648	0.2487	0.3051	0.4224	7.1414	54.0000	EI
0.2615	0.2819	0.2420	0.3476	5.5146	50.8566	VE
1.0000	1.0000	1.0000	1.0000	1.0008	0.0157	SQT

## 45K

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1967	0.1666	0.3839	0.6278	5.8886	54.2340	GS
0.3871	0.4184	0.4599	0.6831	7.0360	51.4415	AR
0.2089	0.1777	0.3606	0.5331	6.9269	57.8032	AS
0.2995	0.3102	0.3977	0.6321	7.4257	51.1144	MK
0.3032	0.2932	0.4071	0.5866	7.5252	55.4920	MC
0.2384	0.1982	0.3882	0.6038	6.3571	55.5612	EI
0.3045	0.2952	0.4121	0.6646	4.9892	52.4388	VE
1.0000	1.0000	1.0000	1.0000	1.0023	0.0046	SQT

## 45L

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2065	0.1756	0.3522	0.5394	5.8454	53.6214	GS
0.2245	0.2335	0.3451	0.5413	6.6921	51.8738	AR
0.1582	0.1279	0.2738	0.4233	6.5068	57.7961	AS
0.1629	0.1670	0.3190	0.5170	7.2627	50.5485	MK
0.2924	0.2866	0.4188	0.5426	7.5373	55.1796	MC
0.0943	0.0705	0.2847	0.4731	5.6492	55.1942	EI
0.2327	0.2259	0.3634	0.5545	4.9366	52.9806	VE
1.0000	1.0000	1.0000	1.0000	1.0443	-0.0070	SQT

45N

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3742	0.4295	0.4454	0.6809	7.9342	51.2124	GS
0.3197	0.3790	0.3824	0.6578	7.6736	52.1236	AR
0.3135	0.2648	0.4658	0.6209	6.8394	58.0425	AS
0.3977	0.4384	0.4406	0.6631	7.8572	50.0154	MK
0.3099	0.2728	0.5021	0.6610	6.8103	55.5483	MC
0.3832	0.3452	0.5057	0.6871	6.8498	54.8494	EI
0.4036	0.4626	0.4403	0.6920	5.8641	51.0154	VE
1.0000	1.0000	1.0000	1.0000	0.9686	0.0279	SQT

45T

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2298	0.2275	0.3541	0.5246	6.8034	52.0769	GS
0.2869	0.3327	0.3576	0.5251	7.4608	50.7991	AR
0.2358	0.2276	0.3497	0.4759	7.7667	55.9872	AS
0.0767	0.0811	0.1372	0.3744	7.4934	49.3504	MK
0.2059	0.2522	0.2839	0.4493	9.4193	53.1068	MC
0.2123	0.1985	0.3422	0.5056	7.0645	54.4017	EI
0.1953	0.2124	0.3078	0.4750	5.5310	51.9359	VE
1.0000	1.0000	1.0000	1.0000	1.0109	-0.0581	SQT

46Z

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2371	0.1770	0.4122	0.6079	5.1904	59.3886	GS
0.2837	0.2595	0.3946	0.6159	5.9542	58.7293	AR
0.1077	0.1024	0.1574	0.3728	7.7460	54.2620	AS
0.2688	0.2292	0.4194	0.6138	6.1141	58.4934	MK
0.2540	0.2491	0.3560	0.5184	7.6299	57.5240	MC
0.2436	0.2397	0.3402	0.5364	7.5262	56.4585	EI
0.1894	0.0971	0.3978	0.6185	2.6368	59.4847	VE
1.0000	1.0000	1.0000	1.0000	1.0111	0.0369	SQT

51B

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2268	0.2110	0.3616	0.5393	6.4678	51.1588	GS
0.2840	0.3060	0.3349	0.5283	7.0154	50.6301	AR
0.3136	0.2981	0.4090	0.5487	7.7409	54.3945	AS
0.2624	0.2591	0.3284	0.5006	7.0786	49.8241	MK
0.3324	0.3485	0.4319	0.5708	8.1594	53.1119	MC
0.2883	0.2645	0.4237	0.5750	7.0166	51.6418	EI
0.2034	0.2037	0.2849	0.4673	5.1553	51.3902	VE
1.0000	1.0000	1.0000	1.0000	1.0417	-0.0493	SQT

51K

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3546	0.3366	0.5233	0.6795	6.5209	51.0490	GS
0.3687	0.4231	0.4115	0.6107	7.3835	49.8571	AR
0.4345	0.4382	0.4875	0.6265	8.1150	53.1551	AS
0.2678	0.2558	0.3666	0.5589	6.7650	48.5510	MK
0.4332	0.4731	0.5159	0.6546	8.3978	51.3469	MC
0.3915	0.3629	0.5578	0.6901	7.0046	52.0980	EI
0.2635	0.2563	0.3669	0.5418	4.9472	51.6163	VE
1.0000	1.0000	1.0000	1.0000	0.9515	-0.0430	SQT

## 51M

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1499	0.1507	0.2157	0.4124	6.9109	51.4049	GS
0.2163	0.2504	0.2251	0.4144	7.4477	50.1411	AR
0.2303	0.2016	0.3347	0.4670	7.0445	55.7423	AS
0.1409	0.1310	0.1696	0.3578	6.5840	47.6626	MK
0.2613	0.2843	0.3320	0.4764	8.3666	52.9877	MC
0.3100	0.2681	0.4111	0.5315	6.5355	53.4110	EI
0.1694	0.1873	0.1737	0.3686	5.6231	51.5460	VE
1.0000	1.0000	1.0000	1.0000	0.9843	-0.0120	SQT

## 51R

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1467	0.1265	0.3206	0.5057	5.9273	52.7748	GS
0.3415	0.3335	0.4791	0.6212	6.2846	53.3393	AR
0.2801	0.2938	0.3510	0.4895	8.4401	55.3754	AS
0.3543	0.3436	0.4588	0.5988	6.8694	52.3814	MK
0.3166	0.3484	0.4101	0.5443	8.4621	55.2553	MC
0.2867	0.2658	0.4215	0.5683	7.0059	56.2673	EI
0.1938	0.2054	0.3045	0.4889	5.3884	52.4264	VE
1.0000	1.0000	1.0000	1.0000	0.9809	0.0070	SQT

## 51T

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2722	0.2399	0.3389	0.5991	5.9624	55.7532	GS
0.2699	0.2916	0.2477	0.5582	6.8456	55.1266	AR
0.3580	0.3576	0.4345	0.5781	7.9169	54.8101	AS
0.2883	0.2979	0.2832	0.5554	7.2106	55.8608	MK
0.2991	0.2673	0.3580	0.5519	6.7683	57.7911	MC
0.3590	0.3533	0.4567	0.6371	7.3242	55.2848	EI
0.3231	0.2939	0.3982	0.6624	4.5557	55.0570	VE
1.0000	1.0000	1.0000	1.0000	1.0134	-0.0491	SQT

## 52C

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1525	0.1103	0.4219	0.6533	4.9707	53.6502	GS
0.3703	0.3788	0.5000	0.7051	6.5807	51.1687	AR
0.2002	0.1863	0.3929	0.5713	7.4900	56.3992	AS
0.2358	0.2376	0.3916	0.6218	7.1362	51.2881	MK
0.3233	0.3236	0.4602	0.6338	7.6978	54.3333	MC
0.3488	0.2845	0.5410	0.7019	6.1652	56.0535	EI
0.1750	0.1599	0.3783	0.6253	4.6468	53.1523	VE
1.0000	1.0000	1.0000	1.0000	0.9306	0.0981	SQT

## 52D

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2600	0.2267	0.5022	0.6936	6.0628	53.5953	GS
0.4403	0.4713	0.5426	0.7251	6.9691	51.8211	AR
0.2537	0.2187	0.5028	0.6474	7.0194	57.4155	AS
0.3582	0.3778	0.4837	0.6698	7.5624	51.4998	MK
0.4131	0.3941	0.5697	0.7052	7.4241	55.4160	MC
0.3303	0.2725	0.5613	0.7170	6.3105	55.6522	EI
0.2574	0.2559	0.4214	0.6264	5.1168	52.8307	VE
1.0000	1.0000	1.0000	1.0000	0.9850	0.0161	SQT

## 54B

Uncrr	Atten	Army	Youth	STD	MEAN	
0.4003	0.3674	0.5039	0.7121	6.1518	54.8157	GS
0.4923	0.5978	0.5192	0.7231	7.6226	52.0094	AR
0.4458	0.5030	0.5095	0.6554	8.8583	53.2268	AS
0.3787	0.4311	0.4277	0.6493	7.8659	52.4913	MK
0.4793	0.4876	0.5488	0.6994	7.6329	55.1953	MC
0.4621	0.5322	0.5140	0.6978	8.4904	53.4457	EI
0.3154	0.3047	0.4207	0.6502	4.7922	54.3102	VE
1.0000	1.0000	1.0000	1.0000	1.0086	-0.0306	SQT

## 55B

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2862	0.2531	0.3783	0.6190	6.2570	52.7215	GS
0.3632	0.4211	0.3906	0.6295	7.6817	49.9744	AR
0.1559	0.1353	0.2792	0.4696	7.1903	54.2263	AS
0.3431	0.3653	0.3714	0.6038	7.7647	49.8285	MK
0.2791	0.3016	0.3150	0.5179	8.5582	52.4474	MC
0.2291	0.1946	0.3395	0.5593	6.6093	52.9920	EI
0.3026	0.3070	0.3475	0.6175	5.3108	52.7480	VE
1.0000	1.0000	1.0000	1.0000	1.0263	0.0101	SQT

## 55D

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2846	0.2185	0.5067	0.7133	5.2760	58.0262	GS
0.2940	0.2849	0.4508	0.6846	6.2346	56.2251	AR
0.2180	0.1616	0.4868	0.6427	5.9633	59.6283	AS
0.2695	0.2767	0.3936	0.6252	7.2752	55.9058	MK
0.3365	0.2859	0.5302	0.6858	6.5342	59.6702	MC
0.1491	0.1172	0.4282	0.6465	5.9430	57.8901	EI
0.2879	0.2461	0.4146	0.6492	4.3468	56.7016	VE
1.0000	1.0000	1.0000	1.0000	0.9396	0.0596	SQT

## 55G

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1671	0.1559	0.2933	0.5435	6.4117	54.8485	GS
0.3502	0.3573	0.4307	0.6150	6.5651	53.9596	AR
0.0909	0.0805	0.1994	0.3918	7.1294	54.2222	AS
0.3139	0.3017	0.3901	0.5860	6.8097	53.5556	MK
0.1848	0.1780	0.2792	0.4757	7.4061	55.0808	MC
0.1018	0.0899	0.2004	0.4453	6.6683	55.2323	EI
0.1853	0.2215	0.2174	0.5044	6.0774	53.3232	VE
1.0000	1.0000	1.0000	1.0000	1.0979	-0.0854	SQT

## 57E

Uncrr	Atten	Army	Youth	STD	MEAN	
0.0548	0.0493	0.1586	0.2001	6.1839	47.1621	GS
0.0613	0.0597	0.1244	0.1734	6.2656	44.7802	AR
0.1461	0.1270	0.2196	0.2591	6.9968	46.4176	AS
0.0727	0.0570	0.1353	0.1722	5.5545	44.5687	MK
0.1620	0.1548	0.2312	0.2658	7.3506	44.1456	MC
0.0848	0.0649	0.1886	0.2289	5.7834	46.4038	EI
-0.0012	-0.0013	0.0921	0.1211	5.5210	48.1071	VE
1.0000	1.0000	1.0000	1.0000	1.0713	-0.0343	SQT

## 62B

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.4727	0.5081	0.4934	0.6932	7.6895	50.0320	GS
0.4898	0.5001	0.4723	0.6865	6.8400	50.8650	AR
0.5812	0.5751	0.5928	0.7071	8.2911	56.0391	AS
0.4076	0.3985	0.4113	0.6287	7.2128	48.7150	MK
0.5384	0.5538	0.5739	0.7119	8.2371	53.5721	MC
0.4890	0.4832	0.5449	0.7115	7.7753	52.1585	EI
0.4455	0.4668	0.4350	0.6411	5.5487	51.0554	VE
1.0000	1.0000	1.0000	1.0000	0.9846	0.0072	SQT

## 62E

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3190	0.3127	0.4139	0.5737	6.5698	52.3837	GS
0.4108	0.4595	0.4516	0.6040	7.0219	51.4379	AR
0.3651	0.3357	0.4442	0.5715	7.2181	57.6876	AS
0.3372	0.3680	0.3734	0.5385	7.5422	49.3937	MK
0.3856	0.4225	0.4675	0.5974	8.2222	54.8345	MC
0.3198	0.3107	0.4304	0.5850	7.1624	53.9087	EI
0.2950	0.2949	0.3314	0.4897	4.9601	52.6748	VE
1.0000	1.0000	1.0000	1.0000	1.0121	0.0031	SQT

## 62F

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3491	0.2977	0.5087	0.6428	5.8576	51.0868	GS
0.3192	0.3305	0.3989	0.5885	6.6623	50.2314	AR
0.3244	0.3290	0.4296	0.5763	8.1612	55.7273	AS
0.2829	0.2829	0.3733	0.5452	7.0840	48.3678	MK
0.4074	0.4558	0.5009	0.6251	8.6049	52.3430	MC
0.3451	0.3451	0.4606	0.6141	7.5560	52.1653	EI
0.2786	0.2750	0.3988	0.5404	5.0201	51.6694	VE
1.0000	1.0000	1.0000	1.0000	0.9600	0.0255	SQT

## 62J

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2574	0.2502	0.4082	0.5990	6.5143	51.1618	GS
0.3086	0.3577	0.3634	0.5851	7.2750	50.2132	AR
0.3154	0.3018	0.4094	0.5630	7.5106	55.6127	AS
0.3059	0.3167	0.3859	0.5742	7.1552	48.6642	MK
0.4124	0.4676	0.4938	0.6278	8.5059	53.1054	MC
0.2614	0.2533	0.4161	0.5946	7.1446	52.2255	EI
0.2982	0.3096	0.3737	0.5707	5.1502	51.7010	VE
1.0000	1.0000	1.0000	1.0000	0.9620	-0.0102	SQT

## 63B

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.4303	0.4506	0.4673	0.6279	7.1947	49.2727	GS
0.4084	0.4451	0.4223	0.6022	7.0113	49.8363	AR
0.5679	0.5963	0.6276	0.7210	8.4494	55.2649	AS
0.3301	0.3325	0.3384	0.5287	7.1365	48.0274	MK
0.5128	0.5436	0.5861	0.7019	8.1517	52.6822	MC
0.4862	0.4982	0.5563	0.6888	7.7441	51.5406	EI
0.3921	0.4237	0.3802	0.5293	5.4949	50.5905	VE
1.0000	1.0000	1.0000	1.0000	1.0142	-0.0095	SQT



## 63D

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2479	0.2328	0.4519	0.6567	6.4903	52.6285	GS
0.2355	0.2327	0.3832	0.6212	6.3958	52.7218	AR
0.4003	0.2628	0.6415	0.7271	5.3153	60.6232	AS
0.1916	0.1897	0.2862	0.5456	7.0557	50.1004	MK
0.2469	0.1849	0.5148	0.6651	5.7951	58.3028	MC
0.2833	0.2245	0.5385	0.6982	6.0238	55.7430	EI
0.3082	0.2957	0.4510	0.6444	4.9088	52.8539	VE
1.0000	1.0000	1.0000	1.0000	0.9956	0.0504	SQT

## 63E

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3903	0.4409	0.4956	0.6806	7.3291	51.9558	GS
0.2889	0.3309	0.3849	0.6216	6.9581	51.7457	AR
0.4487	0.3923	0.6277	0.7236	6.6433	58.4771	AS
0.3203	0.3615	0.3612	0.5855	7.5493	50.3633	MK
0.3243	0.3030	0.5037	0.6571	6.7856	56.8468	MC
0.4203	0.4191	0.5844	0.7253	7.1163	54.2938	EI
0.3848	0.4177	0.4377	0.6253	5.2128	52.0348	VE
1.0000	1.0000	1.0000	1.0000	0.9790	0.0091	SQT

## 63G

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2796	0.2933	0.3892	0.5452	7.2917	51.6205	GS
0.2638	0.2590	0.3478	0.5133	6.3927	52.5263	AR
0.2902	0.2413	0.4393	0.5493	6.7689	58.3186	AS
0.1816	0.1956	0.2582	0.4435	7.7183	50.2742	MK
0.2268	0.1795	0.3858	0.5259	6.1594	57.0166	MC
0.2624	0.2238	0.4129	0.5526	6.5223	55.7867	EI
0.2139	0.2202	0.2897	0.4452	5.2980	52.1773	VE
1.0000	1.0000	1.0000	1.0000	0.9456	0.0752	SQT

## 63H

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3122	0.3506	0.3228	0.5417	7.7619	48.9211	GS
0.3411	0.3876	0.3432	0.5630	7.3549	49.7543	AR
0.3519	0.3766	0.3464	0.4936	8.6623	54.2811	AS
0.2728	0.2819	0.2745	0.5080	7.3651	47.6410	MK
0.3423	0.3735	0.3575	0.5221	8.4413	52.0018	MC
0.3331	0.3472	0.3580	0.5438	7.9236	51.0372	EI
0.3494	0.3792	0.3513	0.5712	5.5524	50.7053	VE
1.0000	1.0000	1.0000	1.0000	1.0357	-0.0074	SQT

## 63J

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2809	0.3090	0.3213	0.5584	7.6012	46.5309	GS
0.3548	0.3831	0.3734	0.5865	6.9896	47.5693	AR
0.4143	0.4178	0.4886	0.6192	8.1624	48.4457	AS
0.2392	0.2309	0.2439	0.4886	6.8774	46.5943	MK
0.3674	0.3613	0.4616	0.6215	7.6066	48.5726	MC
0.3021	0.2912	0.4064	0.5969	7.3284	48.1886	EI
0.2458	0.2694	0.2966	0.5303	5.6070	49.4508	VE
1.0000	1.0000	1.0000	1.0000	0.9780	-0.0424	SQT

## 63N

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3429	0.3597	0.4972	0.6582	7.2508	51.3217	GS
0.3015	0.3101	0.4018	0.5978	6.6559	51.0667	AR
0.4681	0.3453	0.6636	0.7516	5.9709	59.0696	AS
0.2768	0.2600	0.3171	0.5221	6.6935	49.3681	MK
0.3843	0.3552	0.5865	0.7093	7.1510	55.4058	MC
0.3692	0.3423	0.5366	0.6841	7.0488	54.1333	EI
0.2774	0.2948	0.3843	0.5403	5.4364	51.7710	VE
1.0000	1.0000	1.0000	1.0000	0.9842	0.0963	SQT

## 63S

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2797	0.2777	0.4567	0.6588	6.8628	52.4272	GS
0.2489	0.2613	0.3933	0.6275	6.7968	51.9983	AR
0.3698	0.2434	0.6257	0.7247	5.3288	60.3899	AS
0.2093	0.2123	0.3044	0.5518	7.2267	49.9411	MK
0.3305	0.2529	0.5879	0.7162	5.9194	57.8882	MC
0.3171	0.2538	0.5626	0.7144	6.0848	55.8258	EI
0.3212	0.3231	0.4438	0.6346	5.1456	52.1421	VE
1.0000	1.0000	1.0000	1.0000	0.9938	-0.0202	SQT

## 63T

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2232	0.2115	0.4122	0.6087	6.5896	52.8168	GS
0.2415	0.2424	0.3727	0.5856	6.5367	52.4608	AR
0.3206	0.2143	0.5702	0.6766	5.4428	60.4422	AS
0.1914	0.2002	0.2732	0.5048	7.4968	50.4370	MK
0.2542	0.1910	0.5094	0.6516	5.8463	58.0739	MC
0.2844	0.2291	0.5239	0.6713	6.1587	55.9608	EI
0.2356	0.2332	0.3701	0.5586	5.0936	52.7037	VE
1.0000	1.0000	1.0000	1.0000	1.0117	-0.0041	SQT

## 63W

Uncrr	Atten	Army	Youth	STD	MEAN	
0.4474	0.4965	0.4731	0.6641	7.6708	48.6645	GS
0.4448	0.4879	0.4264	0.6362	7.0999	49.5213	AR
0.6000	0.6292	0.6499	0.7464	8.4886	54.8631	AS
0.3421	0.3390	0.3078	0.5416	7.0623	47.4950	MK
0.5438	0.5829	0.5983	0.7271	8.2928	52.1681	MC
0.4916	0.5061	0.5701	0.7186	7.8271	51.0794	EI
0.4271	0.4776	0.4027	0.5878	5.7200	50.4298	VE
1.0000	1.0000	1.0000	1.0000	0.9787	0.0189	SQT

## 63Y

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3815	0.3966	0.4756	0.6905	7.1853	52.0815	GS
0.4133	0.4311	0.4840	0.6981	6.7502	52.7907	AR
0.4486	0.3114	0.6426	0.7323	5.6188	60.8634	AS
0.3432	0.3533	0.3512	0.6063	7.3372	50.2665	MK
0.3858	0.2879	0.5614	0.7064	5.7721	58.3789	MC
0.3652	0.3072	0.5350	0.7101	6.3947	56.3304	EI
0.4034	0.4413	0.4662	0.6741	5.5962	52.4559	VE
1.0000	1.0000	1.0000	1.0000	0.9726	-0.0115	SQT

## 67N

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3243	0.3063	0.4701	0.6970	6.5287	54.8051	GS
0.3797	0.3778	0.4880	0.7217	6.4400	54.1581	AR
0.2491	0.1798	0.4726	0.6232	5.8433	59.4792	AS
0.3672	0.3836	0.4546	0.6813	7.4452	52.9760	MK
0.3532	0.2653	0.5425	0.6862	5.8112	59.3994	MC
0.2993	0.2479	0.4801	0.6786	6.2979	57.4585	EI
0.3846	0.3585	0.4968	0.7278	4.7676	54.5559	VE
1.0000	1.0000	1.0000	1.0000	0.9824	0.0429	SQT

## 67R

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2246	0.2372	0.3207	0.5785	7.2993	53.4815	GS
0.4002	0.4619	0.4980	0.6976	7.4705	51.7963	AR
0.2008	0.1525	0.3211	0.5150	6.1469	57.3056	AS
0.3532	0.3964	0.3542	0.5941	7.9983	52.9074	MK
0.4465	0.3871	0.5847	0.7009	6.7068	56.9907	MC
0.1840	0.1872	0.2949	0.5477	7.7338	54.1019	EI
0.2785	0.2871	0.4158	0.6565	5.2729	52.6944	VE
1.0000	1.0000	1.0000	1.0000	1.0373	-0.0803	SQT

## 67T

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3148	0.2979	0.4254	0.6162	6.5410	55.2125	GS
0.3170	0.3128	0.4066	0.6198	6.3874	54.4278	AR
0.2069	0.1549	0.4100	0.5626	6.0578	59.6222	AS
0.3745	0.4202	0.4284	0.6120	7.9954	53.0361	MK
0.3367	0.2690	0.5001	0.6337	6.1819	59.3764	MC
0.3144	0.2645	0.4749	0.6357	6.3971	57.8250	EI
0.3177	0.3177	0.3997	0.5960	5.1158	54.3889	VE
1.0000	1.0000	1.0000	1.0000	0.9962	0.0207	SQT

## 67U

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3848	0.3522	0.5075	0.7257	6.3266	55.1025	GS
0.4301	0.4619	0.5265	0.7450	6.9511	53.8123	AR
0.2285	0.1799	0.4417	0.6095	6.3719	59.6591	AS
0.3848	0.4096	0.4648	0.6896	7.5867	52.7816	MK
0.3356	0.2654	0.5115	0.6732	6.1172	58.7537	MC
0.3409	0.2847	0.5020	0.6947	6.3507	57.6818	EI
0.3874	0.3790	0.4707	0.7122	5.0050	54.4940	VE
1.0000	1.0000	1.0000	1.0000	0.9922	0.0221	SQT

## 67V

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2130	0.1914	0.3323	0.5295	6.4636	55.8151	GS
0.2776	0.2703	0.3656	0.5513	6.5585	54.2965	AR
0.2300	0.1571	0.3934	0.5324	5.7566	59.9119	AS
0.2304	0.2415	0.2859	0.4845	7.7760	53.5087	MK
0.2833	0.2038	0.4411	0.5805	5.7939	60.0484	MC
0.2291	0.1821	0.3990	0.5616	6.2897	57.9901	EI
0.2132	0.1980	0.2900	0.4860	4.9451	54.8189	VE
1.0000	1.0000	1.0000	1.0000	1.0281	-0.0025	SQT

## 67Y

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2464	0.2299	0.4070	0.6165	6.4486	55.7844	GS
0.2945	0.2994	0.4092	0.6242	6.5800	54.2881	AR
0.2538	0.1806	0.4943	0.6276	5.7613	59.1450	AS
0.2208	0.2468	0.2984	0.5365	7.9633	53.9703	MK
0.2758	0.2148	0.4885	0.6401	6.0238	59.0632	MC
0.3027	0.2455	0.4989	0.6622	6.1672	57.7026	EI
0.2582	0.2427	0.3835	0.5902	4.8090	54.7788	VE
1.0000	1.0000	1.0000	1.0000	1.0528	-0.0327	SQT

## 68B

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1197	0.1159	0.2036	0.5198	6.7314	54.7925	GS
0.1981	0.2037	0.2812	0.5777	6.6933	54.1361	AR
0.0278	0.0217	0.1359	0.3689	6.3554	58.7109	AS
0.1856	0.1982	0.2368	0.5359	7.6537	53.9286	MK
0.2128	0.1746	0.3215	0.5115	6.3852	58.7585	MC
0.0782	0.0652	0.1780	0.4603	6.3684	57.0544	EI
0.2907	0.2798	0.3783	0.6845	4.9545	54.5646	VE
1.0000	1.0000	1.0000	1.0000	0.6087	0.0563	SQT

## 68D

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2162	0.2085	0.3169	0.5593	6.6634	55.1971	GS
0.2834	0.2734	0.3858	0.6051	6.2450	54.3676	AR
0.0779	0.0589	0.2030	0.4069	6.1260	60.1118	AS
0.2673	0.2834	0.3513	0.5701	7.5565	52.5765	MK
0.2268	0.1709	0.3515	0.5272	5.8289	59.2500	MC
0.1559	0.1212	0.2729	0.4997	5.9087	57.3147	EI
0.2371	0.2324	0.3074	0.5712	5.0160	54.1853	VE
1.0000	1.0000	1.0000	1.0000	0.9105	0.0879	SQT

## 68F

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3042	0.2907	0.4265	0.6705	6.6043	55.9390	GS
0.4304	0.4139	0.5261	0.7249	6.2248	55.7012	AR
0.2050	0.1550	0.3850	0.5550	6.1210	58.8841	AS
0.3920	0.3961	0.4965	0.6967	7.2006	54.8201	MK
0.2938	0.2333	0.4544	0.6273	6.1414	58.9085	MC
0.2156	0.1719	0.3893	0.6133	6.0596	58.0976	EI
0.2334	0.2458	0.3804	0.6532	5.3859	54.7104	VE
1.0000	1.0000	1.0000	1.0000	0.9228	0.0156	SQT

## 68G

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3825	0.3644	0.4949	0.6878	6.5457	54.9880	GS
0.4356	0.4451	0.5301	0.7177	6.5739	54.4399	AR
0.2288	0.1699	0.4021	0.5625	5.9758	59.5144	AS
0.4039	0.4225	0.4939	0.6832	7.4096	52.8582	MK
0.2965	0.2350	0.4678	0.6253	6.0937	59.0409	MC
0.3450	0.2967	0.4860	0.6608	6.4983	57.1418	EI
0.3609	0.3446	0.4379	0.6509	4.8548	54.5817	VE
1.0000	1.0000	1.0000	1.0000	1.0096	0.0176	SQT

68J

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2402	0.2019	0.3651	0.5992	5.9461	54.9287	GS
0.2055	0.1793	0.3118	0.5721	5.7782	54.7013	AR
0.1830	0.1519	0.2784	0.4658	6.8779	56.9672	AS
0.2526	0.2481	0.3505	0.5758	7.1637	54.3314	MK
0.1498	0.1230	0.2950	0.4970	6.5009	57.2582	MC
0.2777	0.2290	0.4009	0.5855	6.4158	56.2967	EI
0.2095	0.2092	0.3202	0.5859	5.2284	53.9114	VE
1.0000	1.0000	1.0000	1.0000	1.0776	-0.0077	SQT

68M

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2213	0.2056	0.3011	0.5412	6.3823	53.9588	GS
0.1664	0.1803	0.1903	0.4845	6.9731	52.7887	AR
0.1806	0.1613	0.2545	0.4390	7.1880	55.5567	AS
0.2161	0.2330	0.2697	0.5080	7.6359	51.9381	MK
0.1917	0.1845	0.2430	0.4465	7.4006	54.5206	MC
0.1962	0.1775	0.3125	0.5160	6.8348	54.6186	EI
0.2438	0.2664	0.3017	0.5676	5.5552	52.8557	VE
1.0000	1.0000	1.0000	1.0000	1.1156	-0.0453	SQT

68N

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2991	0.2725	0.4443	0.6883	6.1459	53.5917	GS
0.3507	0.3641	0.4640	0.7085	6.5582	54.0642	AR
0.3101	0.3524	0.3287	0.5219	8.9778	52.4725	AS
0.3222	0.3288	0.4324	0.6744	7.0965	53.4587	MK
0.3246	0.3835	0.3891	0.5857	8.9207	54.2294	MC
0.3444	0.3664	0.4436	0.6480	7.8944	53.9633	EI
0.3455	0.3657	0.4558	0.7225	5.2832	53.4128	VE
1.0000	1.0000	1.0000	1.0000	0.9949	0.0227	SQT

68Z

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.1874	0.1727	0.3524	0.6471	6.3346	55.0232	GS
0.4116	0.3573	0.5336	0.7487	5.5847	55.7710	AR
0.2910	0.3156	0.2869	0.4956	8.7291	54.4116	AS
0.3412	0.3110	0.4735	0.7052	6.4555	56.2029	MK
0.2886	0.3104	0.3796	0.5844	8.2695	56.3130	MC
0.2412	0.2494	0.3342	0.5926	7.8138	56.7913	EI
0.2825	0.3069	0.4051	0.7150	5.5249	54.0638	VE
1.0000	1.0000	1.0000	1.0000	0.9568	0.0271	SQT

71D

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2149	0.1894	0.4075	0.6565	6.2001	56.3323	GS
0.2931	0.2055	0.5091	0.7293	4.6173	58.4704	AR
0.1668	0.1662	0.2369	0.4531	8.2066	51.6313	AS
0.2212	0.1635	0.4847	0.7034	5.3621	58.8058	MK
0.2280	0.2239	0.3937	0.5741	7.7314	56.0379	MC
0.2160	0.2202	0.3667	0.5955	7.8884	53.9757	EI
0.2561	0.1799	0.4842	0.7418	3.6576	57.3778	VE
1.0000	1.0000	1.0000	1.0000	1.0341	-0.0795	SQT

## 71G

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2667	0.2863	0.3810	0.6539	7.4187	49.3491	GS
0.2427	0.2157	0.4508	0.7053	5.7529	51.0797	AR
0.1527	0.1613	0.1659	0.4104	8.5519	46.4554	AS
0.2413	0.2097	0.4589	0.6959	6.1933	51.1252	MK
0.1124	0.1197	0.2315	0.4803	8.2345	48.5825	MC
0.1932	0.2099	0.2861	0.5532	8.2599	47.4630	EI
0.2754	0.2834	0.4425	0.7418	5.2637	52.7135	VE
1.0000	1.0000	1.0000	1.0000	1.0313	0.0060	SQT

## 71L

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1957	0.2047	0.2919	0.5666	7.2725	49.5506	GS
0.3141	0.3022	0.4360	0.6632	6.2663	52.3487	AR
0.1253	0.1281	0.1028	0.3407	8.3204	45.8745	AS
0.2878	0.2630	0.4375	0.6557	6.5499	52.3491	MK
0.2055	0.2281	0.2596	0.4683	8.6390	48.5354	MC
0.1595	0.1706	0.2108	0.4762	8.1793	47.2071	EI
0.2444	0.2374	0.3707	0.6647	4.9987	53.1255	VE
1.0000	1.0000	1.0000	1.0000	1.0050	-0.0095	SQT

## 71M

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3979	0.4351	0.4317	0.6515	7.6915	53.0649	GS
0.3274	0.3100	0.4103	0.6563	6.2380	54.1141	AR
0.2649	0.2942	0.2253	0.4265	9.1501	50.2729	AS
0.2723	0.2479	0.3918	0.6346	6.6025	53.8031	MK
0.3179	0.3767	0.3306	0.5178	9.3294	52.2640	MC
0.2922	0.3280	0.2578	0.5141	8.6860	51.5436	EI
0.4177	0.4289	0.4878	0.7231	5.3455	55.0626	VE
1.0000	1.0000	1.0000	1.0000	1.0487	0.0078	SQT

## 72E

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3345	0.3547	0.3456	0.5349	7.4145	50.5474	GS
0.3316	0.3541	0.3438	0.5447	6.9934	51.4026	AR
0.2518	0.2374	0.2698	0.4355	7.7207	50.2868	AS
0.3935	0.4563	0.3778	0.5494	8.3613	49.7882	MK
0.3248	0.3215	0.3583	0.5085	7.7473	51.9355	MC
0.3526	0.3665	0.3631	0.5294	7.9948	49.3434	EI
0.2672	0.2692	0.3051	0.5095	5.2134	52.6487	VE
1.0000	1.0000	1.0000	1.0000	1.0102	0.0396	SQT

## 72G

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2068	0.2229	0.2290	0.4405	7.4942	50.8700	GS
0.2990	0.3047	0.3446	0.5253	6.6343	51.8150	AR
0.0824	0.0744	0.1234	0.3052	7.3534	48.5838	AS
0.3179	0.3665	0.3423	0.5137	8.2642	51.1750	MK
0.2224	0.2073	0.2620	0.4197	7.2558	51.6475	MC
0.1914	0.1942	0.2179	0.4104	7.7627	48.7425	EI
0.1926	0.1820	0.2363	0.4650	4.8644	53.4312	VE
1.0000	1.0000	1.0000	1.0000	0.9953	-0.0240	SQT

## 73C

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1439	0.1602	0.2165	0.5039	7.5098	50.2186	GS
0.2523	0.2475	0.3623	0.6011	6.1959	53.8714	AR
0.1147	0.1195	0.0853	0.3155	8.2249	46.7456	AS
0.2539	0.2416	0.3856	0.6052	6.6161	54.3956	MK
0.1709	0.2005	0.2083	0.4236	8.8605	49.7128	MC
0.1221	0.1356	0.1559	0.4245	8.2393	48.2350	EI
0.2056	0.2167	0.2851	0.5970	5.2607	52.7418	VE
1.0000	1.0000	1.0000	1.0000	1.0018	-0.0029	SQT

## 73D

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2261	0.2032	0.3320	0.5934	6.2106	55.8652	GS
0.3139	0.2828	0.4154	0.6568	5.8308	58.3696	AR
0.0813	0.0827	0.0815	0.3418	8.2395	51.6435	AS
0.3795	0.3348	0.4851	0.6794	6.2861	58.9957	MK
0.1326	0.1335	0.2424	0.4645	7.7916	55.5652	MC
0.2198	0.2420	0.2452	0.5013	8.3708	54.0174	EI
0.2482	0.1850	0.3293	0.6328	3.8130	57.2043	VE
1.0000	1.0000	1.0000	1.0000	0.9881	0.0521	SQT

## 74B

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2135	0.2018	0.3717	0.6367	6.2550	56.4385	GS
0.3030	0.3111	0.4050	0.6727	6.3635	57.2312	AR
0.1705	0.1828	0.2373	0.4438	8.3138	53.3688	AS
0.2916	0.2839	0.4070	0.6609	6.6431	58.3046	MK
0.1759	0.1775	0.3227	0.5248	7.4710	56.7284	MC
0.2311	0.2671	0.3293	0.5686	8.4100	54.9064	EI
0.3485	0.3016	0.4988	0.7627	4.2396	56.1670	VE
1.0000	1.0000	1.0000	1.0000	1.0309	-0.0069	SQT

## 75B

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1967	0.2215	0.3145	0.5828	7.5943	49.9329	GS
0.3252	0.2964	0.4842	0.6938	5.7576	52.8511	AR
0.1678	0.1883	0.1751	0.3989	8.8660	47.7175	AS
0.3161	0.2871	0.4863	0.6846	6.3154	52.5824	MK
0.2542	0.2850	0.3436	0.5318	8.4664	50.0776	MC
0.2035	0.2330	0.2722	0.5214	8.4922	48.5829	EI
0.2244	0.2419	0.3675	0.6539	5.3823	52.5560	VE
1.0000	1.0000	1.0000	1.0000	0.9902	0.0172	SQT

## 75C

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2085	0.2232	0.3191	0.5924	7.3971	49.2002	GS
0.2960	0.2704	0.4378	0.6714	5.9126	51.8094	AR
0.1113	0.1173	0.1250	0.3670	8.5352	46.2166	AS
0.2446	0.2023	0.4147	0.6467	5.8936	51.4584	MK
0.1368	0.1489	0.2436	0.4694	8.4217	48.4567	MC
0.1664	0.1749	0.2331	0.4996	7.9926	47.3241	EI
0.2266	0.2268	0.3596	0.6604	5.1184	52.5026	VE
1.0000	1.0000	1.0000	1.0000	0.9467	0.0032	SQT

## 75D

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1304	0.1337	0.2787	0.5438	6.8286	48.2224	GS
0.2399	0.2120	0.4258	0.6424	5.5128	51.5400	AR
0.0915	0.0903	0.1462	0.3643	7.6976	44.2656	AS
0.2171	0.1908	0.4116	0.6244	6.0363	51.5768	MK
0.1247	0.1354	0.2503	0.4585	8.0950	46.8872	MC
0.1363	0.1365	0.2520	0.4912	7.3381	45.8688	EI
0.1293	0.1262	0.3153	0.6037	4.8103	51.7856	VE
1.0000	1.0000	1.0000	1.0000	1.0173	-0.0183	SQT

## 75E

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2120	0.2190	0.3807	0.6530	7.1403	48.6016	GS
0.3406	0.3014	0.5451	0.7554	5.7283	51.6535	AR
0.2025	0.2013	0.2424	0.4608	8.0475	45.4583	AS
0.2977	0.2443	0.5316	0.7372	5.8482	51.7417	MK
0.2378	0.2502	0.3809	0.5729	8.1373	47.3890	MC
0.2447	0.2475	0.3657	0.6023	7.6883	46.9181	EI
0.2873	0.2751	0.4703	0.7499	4.8988	52.2756	VE
1.0000	1.0000	1.0000	1.0000	0.9892	0.0257	SQT

## 75F

Uncrr	Atten	Army	Youth	STD	MEAN	
0.0923	0.0960	0.2110	0.5185	7.1861	52.7561	GS
0.2192	0.1727	0.3745	0.6191	5.1015	55.9199	AR
0.1220	0.1247	0.1342	0.3598	8.2733	48.1777	AS
0.1774	0.1380	0.3608	0.6019	5.5422	57.0314	MK
0.0994	0.1035	0.2139	0.4429	8.0503	52.5575	MC
-0.0085	-0.0096	0.0959	0.4054	8.6176	50.5401	EI
0.1417	0.1284	0.2772	0.6082	4.6352	55.1045	VE
1.0000	1.0000	1.0000	1.0000	0.9941	0.0375	SQT

## 76J

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1493	0.1630	0.3042	0.5962	7.5470	48.4924	GS
0.2930	0.2578	0.4870	0.7072	5.6953	51.6667	AR
0.1122	0.1164	0.1518	0.3912	8.4028	46.7821	AS
0.2353	0.1999	0.4643	0.6853	6.0564	51.6057	MK
0.1666	0.1734	0.2893	0.5072	8.0499	47.8780	MC
0.1506	0.1622	0.2383	0.5136	8.1853	46.7037	EI
0.1890	0.2120	0.3659	0.6792	5.7361	50.9259	VE
1.0000	1.0000	1.0000	1.0000	0.9819	0.0826	SQT

## 76P

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3242	0.3759	0.3317	0.6019	8.0134	47.9228	GS
0.3869	0.4153	0.4388	0.6748	6.9475	50.9963	AR
0.2302	0.2492	0.1169	0.3699	8.7628	46.3981	AS
0.3806	0.4149	0.4308	0.6547	7.7692	50.5502	MK
0.2943	0.3505	0.2644	0.4870	9.2151	47.6372	MC
0.3002	0.3404	0.2678	0.5231	8.6210	47.0742	EI
0.2836	0.3150	0.3479	0.6512	5.6817	50.8696	VE
1.0000	1.0000	1.0000	1.0000	1.0058	0.0409	SQT



## 76V

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3448	0.3907	0.3591	0.5638	7.8307	47.7030	GS
0.3246	0.3194	0.3561	0.5682	6.3689	50.1433	AR
0.3557	0.4162	0.3173	0.4832	9.4738	48.6240	AS
0.2760	0.2604	0.3044	0.5182	6.7236	49.0777	MK
0.3822	0.4592	0.3846	0.5443	9.2936	48.5389	MC
0.3544	0.4042	0.3531	0.5416	8.6699	47.5766	EI
0.2975	0.3340	0.3246	0.5403	5.7439	50.4355	VE
1.0000	1.0000	1.0000	1.0000	0.9827	0.0349	SQT

## 76X

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3538	0.3922	0.3920	0.6771	7.6621	45.7269	GS
0.4638	0.5200	0.5452	0.7665	7.2561	48.0402	AR
0.3463	0.3661	0.2177	0.4619	8.5577	44.8233	AS
0.4104	0.4316	0.4623	0.7092	7.4943	46.1807	MK
0.3892	0.4743	0.3535	0.5706	9.4265	45.2892	MC
0.3545	0.3705	0.3261	0.5957	7.9474	45.4056	EI
0.3632	0.3764	0.4680	0.7662	5.3014	49.2289	VE
1.0000	1.0000	1.0000	1.0000	1.0576	-0.0273	SQT

## 77F

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3639	0.3965	0.4051	0.6035	7.5760	48.8615	GS
0.3776	0.3700	0.4266	0.6262	6.3798	50.8207	AR
0.3878	0.4222	0.4061	0.5592	8.8659	50.5910	AS
0.3084	0.2892	0.3787	0.5777	6.7222	49.7073	MK
0.4272	0.4671	0.4736	0.6181	8.5089	50.6005	MC
0.3900	0.4307	0.4280	0.6062	8.4459	48.8936	EI
0.3139	0.3288	0.3680	0.5718	5.3891	51.1728	VE
1.0000	1.0000	1.0000	1.0000	0.9854	-0.0022	SQT

## 77W

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.1972	0.1671	0.3117	0.5361	5.8220	50.0432	GS
0.2916	0.3247	0.3500	0.5667	7.1628	47.2027	AR
0.2354	0.2250	0.3103	0.4763	7.6915	50.1676	AS
0.2678	0.2701	0.3390	0.5432	7.1441	48.1351	MK
0.3154	0.3396	0.3769	0.5387	8.2808	47.9405	MC
0.1814	0.1689	0.2955	0.5053	7.0367	50.0919	EI
0.1942	0.2054	0.3031	0.5387	5.3798	50.2865	VE
1.0000	1.0000	1.0000	1.0000	0.9839	0.0163	SQT

## 81L

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.1422	0.1410	0.0774	0.2338	6.7090	49.1939	GS
0.2553	0.3213	0.1798	0.2807	7.9753	48.8121	AR
0.3054	0.3422	0.2811	0.3384	8.8793	46.6788	AS
0.1984	0.2098	0.1403	0.2603	7.3795	47.0182	MK
0.1642	0.1613	0.1416	0.2585	7.4395	48.6970	MC
0.0957	0.0991	0.0183	0.1723	7.7041	47.6788	EI
0.0983	0.1094	0.0360	0.1941	5.5738	51.4606	VE
1.0000	1.0000	1.0000	1.0000	0.9662	-0.0901	SQT

## 82C

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2901	0.2560	0.4356	0.6599	5.9730	53.6989	GS
0.4554	0.5140	0.4945	0.7012	7.1516	52.6290	AR
0.3325	0.3544	0.3773	0.5538	8.4469	53.5242	AS
0.4521	0.4966	0.5152	0.6952	7.6629	52.4839	MK
0.3437	0.3258	0.4549	0.6227	7.1793	55.7876	MC
0.3034	0.3049	0.3689	0.5955	7.4793	52.1586	EI
0.2809	0.2592	0.3759	0.6285	4.6224	54.0538	VE
1.0000	1.0000	1.0000	1.0000	1.0529	-0.0477	SQT

## 88H

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1352	0.1297	0.2795	0.4791	6.2663	50.1752	GS
0.2171	0.2545	0.2771	0.4817	7.1723	47.8860	AR
0.2122	0.2138	0.3041	0.4478	7.7095	50.7635	AS
0.2122	0.2226	0.2974	0.4796	7.0632	46.9972	MK
0.2195	0.2616	0.3045	0.4624	8.7131	48.8647	MC
0.1784	0.1657	0.2931	0.4704	6.6714	50.0228	EI
0.1553	0.1653	0.2482	0.4595	5.1438	51.3604	VE
1.0000	1.0000	1.0000	1.0000	1.0406	-0.0030	SQT

## 88M

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3092	0.3285	0.3200	0.5215	7.4740	48.9926	GS
0.3643	0.4003	0.3575	0.5501	7.2373	49.4737	AR
0.3910	0.4051	0.4022	0.5345	8.5357	52.9540	AS
0.2954	0.3006	0.2830	0.4881	7.3821	47.7816	MK
0.3787	0.4048	0.3992	0.5486	8.4161	51.5471	MC
0.3654	0.3897	0.3822	0.5514	8.2524	49.5571	EI
0.2921	0.3042	0.3054	0.5042	5.4218	50.9049	VE
1.0000	1.0000	1.0000	1.0000	0.9749	0.0218	SQT

## 88N

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1030	0.1157	0.1787	0.4225	7.7679	48.5411	GS
0.2097	0.2065	0.2792	0.4940	6.3725	52.8322	AR
0.0622	0.0707	0.0794	0.2694	9.2084	47.0022	AS
0.1491	0.1370	0.2690	0.4801	6.5488	52.0433	MK
0.0877	0.0950	0.1625	0.3511	8.3762	49.4756	MC
0.0809	0.0897	0.1402	0.3629	8.4301	48.2856	EI
0.1600	0.1935	0.2271	0.4928	6.1892	51.5156	VE
1.0000	1.0000	1.0000	1.0000	0.9514	0.0604	SQT

## 91A

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2256	0.2001	0.3424	0.5466	6.0205	54.3291	GS
0.2888	0.3260	0.3514	0.5606	7.1746	52.5211	AR
0.2689	0.2846	0.3332	0.4846	8.4112	51.7777	AS
0.2371	0.2494	0.3166	0.5248	7.3629	52.8402	MK
0.2810	0.2693	0.3873	0.5389	7.2785	54.6114	MC
0.2709	0.2843	0.3488	0.5327	7.8343	51.9145	EI
0.2312	0.2059	0.3409	0.5499	4.4743	54.4937	VE
1.0000	1.0000	1.0000	1.0000	1.0175	-0.0020	SQT

91D

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.4086	0.3446	0.5841	0.7325	5.7073	53.9012	GS
0.3105	0.3418	0.4177	0.6559	6.9751	52.3634	AR
0.1280	0.1386	0.2487	0.4612	8.5762	50.3895	AS
0.3105	0.3036	0.4560	0.6538	6.8222	53.0116	MK
0.1825	0.1793	0.4061	0.5705	7.4407	53.2238	MC
0.2134	0.2216	0.3952	0.5963	7.7298	51.3953	EI
0.3182	0.2748	0.4956	0.6823	4.3246	54.7587	VE
1.0000	1.0000	1.0000	1.0000	1.0081	0.0257	SQT

91E

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.1470	0.1263	0.2627	0.4741	5.8134	52.5925	GS
0.2366	0.2674	0.3018	0.5129	7.1607	51.0844	AR
0.0040	0.0040	0.0481	0.2492	7.9038	47.9066	AS
0.1534	0.1520	0.2645	0.4804	6.9158	51.7361	MK
0.0904	0.0814	0.2090	0.3802	6.8200	51.7397	MC
0.1399	0.1434	0.2225	0.4162	7.6316	49.3250	EI
0.1902	0.1601	0.3055	0.5361	4.2154	54.0000	VE
1.0000	1.0000	1.0000	1.0000	1.0331	-0.0087	SQT

91F

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.0986	0.0953	0.1009	0.1691	6.5416	54.6055	GS
0.1594	0.1896	0.1933	0.2385	7.5360	53.3853	AR
0.0887	0.0975	0.0794	0.1345	8.7121	50.7890	AS
0.1824	0.1768	0.2202	0.2601	6.7611	53.4312	MK
0.1206	0.1114	0.1330	0.1829	6.9925	53.5275	MC
0.0948	0.0950	0.0943	0.1610	7.4574	51.4541	EI
0.0281	0.0215	0.0893	0.1604	3.8382	55.9679	VE
1.0000	1.0000	1.0000	1.0000	0.9354	0.0580	SQT

91G

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2892	0.2097	0.4990	0.6702	4.9051	56.2532	GS
0.2542	0.2224	0.4696	0.6619	5.5433	56.0649	AR
0.2270	0.2416	0.3421	0.5481	8.4338	52.1429	AS
0.2302	0.1805	0.4490	0.6134	5.4714	56.0714	MK
0.2698	0.2339	0.5379	0.6747	6.5649	55.9870	MC
0.2741	0.2688	0.4440	0.6295	7.3004	52.5455	EI
0.0922	0.0573	0.3330	0.5393	3.1106	57.4805	VE
1.0000	1.0000	1.0000	1.0000	0.9784	-0.0833	SQT

91K

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.1153	0.1041	0.1810	0.3677	6.1103	56.5985	GS
0.1692	0.1728	0.2385	0.4174	6.4720	55.3647	AR
0.0904	0.0998	0.0755	0.2334	8.7480	49.6882	AS
0.2446	0.2201	0.3290	0.4684	6.2775	58.1382	MK
0.1124	0.1218	0.1616	0.3093	8.2083	54.3500	MC
0.1495	0.1621	0.1714	0.3368	8.0696	53.0853	EI
0.1086	0.1007	0.1853	0.3964	4.6453	55.8676	VE
1.0000	1.0000	1.0000	1.0000	0.9931	0.0211	SQT

91M

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2130	0.2353	0.2897	0.5682	7.4747	49.1017	GS
0.2611	0.2954	0.3591	0.6186	7.1700	48.1695	AR
0.0346	0.0315	0.1155	0.3417	7.2067	49.8686	AS
0.2635	0.2711	0.3611	0.6128	7.1778	47.7881	MK
0.0601	0.0527	0.1899	0.4216	6.6375	51.1102	MC
0.1860	0.1890	0.2665	0.5037	7.5635	47.4195	EI
0.2940	0.2667	0.3851	0.6807	4.5435	53.0593	VE
1.0000	1.0000	1.0000	1.0000	1.1420	-0.0206	SQT

91P

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2525	0.2106	0.3811	0.6440	5.6447	56.2156	GS
0.4086	0.4066	0.5256	0.7276	6.3050	55.9219	AR
0.1488	0.1566	0.2123	0.4488	8.3399	52.4813	AS
0.3520	0.3277	0.4815	0.6869	6.4931	56.4531	MK
0.1971	0.1737	0.3257	0.5451	6.6753	56.5688	MC
0.2047	0.2065	0.2920	0.5542	7.5084	54.3625	EI
0.1810	0.1349	0.3141	0.6227	3.7323	56.2031	VE
1.0000	1.0000	1.0000	1.0000	1.0597	-0.0680	SQT

91Q

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3366	0.2944	0.4032	0.6399	5.9184	55.8949	GS
0.3980	0.3640	0.4597	0.6780	5.7945	56.8790	AR
0.3101	0.3407	0.3065	0.5040	8.7074	50.0892	AS
0.2622	0.2115	0.4049	0.6280	5.6279	59.1306	MK
0.3492	0.3828	0.4176	0.5960	8.3033	55.0382	MC
0.3312	0.3711	0.3756	0.5941	8.3380	53.5223	EI
0.2799	0.2543	0.3650	0.6262	4.5502	55.9299	VE
1.0000	1.0000	1.0000	1.0000	1.0417	-0.0285	SQT

91R

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2642	0.2205	0.4055	0.6130	5.6474	56.2374	GS
0.4766	0.4753	0.5828	0.7293	6.3192	56.0428	AR
0.2491	0.2540	0.3093	0.4795	8.0817	53.1051	AS
0.3159	0.3210	0.4740	0.6599	7.0897	54.9533	MK
0.2656	0.2597	0.4189	0.5769	7.4058	56.2101	MC
0.2904	0.2945	0.3822	0.5793	7.5482	54.0934	EI
0.2163	0.1764	0.3912	0.6083	4.0842	56.4981	VE
1.0000	1.0000	1.0000	1.0000	0.9729	0.0746	SQT

91S

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3264	0.2905	0.4160	0.6083	6.0212	56.0085	GS
0.3750	0.4055	0.4129	0.6193	6.8527	54.9492	AR
0.3658	0.4154	0.3604	0.5236	9.0001	50.4237	AS
0.3158	0.3018	0.3782	0.5789	6.6681	57.0297	MK
0.3970	0.4208	0.4389	0.5891	8.0267	54.2373	MC
0.3976	0.4742	0.4458	0.6133	8.8753	52.6271	EI
0.2642	0.2552	0.3829	0.5839	4.8364	55.9025	VE
1.0000	1.0000	1.0000	1.0000	1.0096	0.0332	SQT

91T							
Uncrr	Atten	Army	Youth	STD	MEAN		
0.2448	0.1918	0.4009	0.5856	5.3014	56.5823	GS	
0.3085	0.3130	0.4083	0.6086	6.4291	54.5380	AR	
0.1317	0.1384	0.1817	0.3631	8.3267	50.8734	AS	
0.2508	0.2671	0.3404	0.5605	7.4298	54.4241	MK	
0.1252	0.1081	0.2273	0.4152	6.5388	54.2911	MC	
0.2469	0.2484	0.3639	0.5366	7.4882	52.3418	EI	
0.2408	0.2209	0.4117	0.6142	4.5936	55.9810	VE	
1.0000	1.0000	1.0000	1.0000	1.0594	0.0718	SQT	

91Z							
Uncrr	Atten	Army	Youth	STD	MEAN		
0.1983	0.1712	0.3217	0.5264	5.8422	54.6949	GS	
0.2651	0.3020	0.3576	0.5688	7.2185	53.3322	AR	
0.1223	0.1318	0.2030	0.3753	8.5381	50.8373	AS	
0.2145	0.2192	0.3313	0.5435	7.1301	53.6780	MK	
0.2120	0.2084	0.3434	0.4897	7.4467	53.5390	MC	
0.1922	0.1933	0.3168	0.5002	7.4821	51.4441	EI	
0.2681	0.2197	0.4009	0.6071	4.1045	55.0610	VE	
1.0000	1.0000	1.0000	1.0000	0.9902	-0.0277	SQT	

92A							
Uncrr	Atten	Army	Youth	STD	MEAN		
0.2257	0.2530	0.3082	0.5459	7.6072	50.7056	GS	
0.3528	0.3308	0.4602	0.6473	5.9601	53.7955	AR	
0.2102	0.2379	0.2178	0.4098	8.9994	50.1667	AS	
0.3035	0.2893	0.4198	0.6141	6.6718	53.1793	MK	
0.2973	0.3375	0.3525	0.5231	8.6257	51.8927	MC	
0.2227	0.2505	0.2710	0.4962	8.3995	49.9275	EI	
0.2191	0.2343	0.3194	0.5724	5.3702	52.3873	VE	
1.0000	1.0000	1.0000	1.0000	1.0018	-0.0102	SQT	

92G							
Uncrr	Atten	Army	Youth	STD	MEAN		
0.3896	0.4320	0.4446	0.6644	7.5724	47.7204	GS	
0.4156	0.4843	0.4422	0.6724	7.4536	47.8993	AR	
0.3755	0.3728	0.4214	0.5810	7.9420	49.0000	AS	
0.3461	0.3497	0.3619	0.6069	7.1154	46.6769	MK	
0.4088	0.4287	0.4670	0.6305	8.0158	48.6670	MC	
0.3772	0.4068	0.4349	0.6360	8.1022	47.2531	EI	
0.3817	0.4122	0.4370	0.6661	5.4582	50.2701	VE	
1.0000	1.0000	1.0000	1.0000	0.9889	-0.0230	SQT	

92M							
Uncrr	Atten	Army	Youth	STD	MEAN		
0.3322	0.3057	0.4425	0.6709	6.3234	51.3087	GS	
0.3851	0.4252	0.4861	0.7025	7.1039	47.7651	AR	
0.1232	0.1118	0.1960	0.4335	7.3001	51.3826	AS	
0.3184	0.3075	0.4189	0.6469	6.8409	47.3557	MK	
0.3195	0.3691	0.3783	0.5692	8.8817	48.5369	MC	
0.2200	0.1810	0.3049	0.5551	6.2167	49.5973	EI	
0.2391	0.2246	0.3932	0.6586	4.7757	51.6577	VE	
1.0000	1.0000	1.0000	1.0000	1.0349	-0.0803	SQT	

## 92R

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1908	0.1911	0.2728	0.4889	6.8801	52.6573	GS
0.2686	0.2899	0.3219	0.5199	6.9440	51.6875	AR
0.1583	0.1386	0.2816	0.4474	7.0449	55.3793	AS
0.2776	0.2886	0.3417	0.5143	7.3653	50.3901	MK
0.2663	0.2621	0.3653	0.5196	7.5678	55.7155	MC
0.1947	0.1854	0.2937	0.4827	7.1970	53.5172	EI
0.1510	0.1576	0.2142	0.4465	5.3061	52.8491	VE
1.0000	1.0000	1.0000	1.0000	1.0162	0.0103	SQT

## 92Y

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1707	0.1783	0.2537	0.4973	7.4316	49.6570	GS
0.2436	0.2119	0.3600	0.5738	5.7960	52.4581	AR
0.1484	0.1539	0.1601	0.3503	8.6375	49.1211	AS
0.2096	0.1800	0.3401	0.5535	6.3022	52.3109	MK
0.1543	0.1622	0.2276	0.4204	8.3674	50.4976	MC
0.1554	0.1639	0.2191	0.4442	8.2529	48.8862	EI
0.1865	0.1961	0.2951	0.5570	5.5365	51.7499	VE
1.0000	1.0000	1.0000	1.0000	1.0073	-0.0019	SQT

## 93C

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2122	0.1742	0.3520	0.6036	5.5554	57.4618	GS
0.1676	0.1533	0.2395	0.5540	5.7967	58.4757	AR
0.1523	0.1416	0.2137	0.4181	7.3667	57.6944	AS
0.2105	0.1898	0.3389	0.5908	6.2913	57.5903	MK
0.0895	0.0732	0.2189	0.4449	6.1933	59.3611	MC
0.1594	0.1484	0.2858	0.5205	6.9279	56.3438	EI
0.2593	0.2018	0.3922	0.6728	3.8972	56.1319	VE
1.0000	1.0000	1.0000	1.0000	0.9930	-0.0334	SQT

## 93F

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2452	0.2206	0.4698	0.6530	6.1811	53.4238	GS
0.3672	0.3402	0.5524	0.7080	5.9610	52.6556	AR
0.1745	0.1800	0.3081	0.5024	8.3030	51.2583	AS
0.4159	0.3931	0.5867	0.7097	6.6969	53.1325	MK
0.2388	0.2324	0.4330	0.5957	7.4830	52.3709	MC
0.0857	0.0790	0.3520	0.5647	6.9629	52.9272	EI
0.1507	0.1775	0.3032	0.5290	5.9887	52.5166	VE
1.0000	1.0000	1.0000	1.0000	0.9948	-0.0092	SQT

## 93P

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3016	0.2701	0.4875	0.7178	6.0601	52.9018	GS
0.4972	0.5709	0.5845	0.7884	7.2753	51.6383	AR
0.2379	0.2576	0.2629	0.4894	8.5824	49.9755	AS
0.4535	0.4629	0.5757	0.7665	7.1206	51.4157	MK
0.3640	0.3600	0.4808	0.6371	7.4902	53.1620	MC
0.3350	0.3659	0.4438	0.6559	8.1276	50.2668	EI
0.3453	0.2904	0.5598	0.7987	4.2118	54.6137	VE
1.0000	1.0000	1.0000	1.0000	1.0134	0.0023	SQT

## 95B

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2162	0.1858	0.3940	0.6157	5.7974	54.4585	GS
0.2771	0.2871	0.3946	0.6318	6.5455	52.8793	AR
0.2347	0.2326	0.3334	0.5056	7.8287	54.2827	AS
0.2538	0.2502	0.3759	0.6035	6.8569	52.5923	MK
0.2716	0.2434	0.4266	0.5849	6.7635	55.9761	MC
0.2415	0.2507	0.3669	0.5755	7.7016	53.1125	EI
0.2640	0.2223	0.4299	0.6576	4.2043	54.6300	VE
1.0000	1.0000	1.0000	1.0000	0.9953	0.0117	SQT

## 95C

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1365	0.1300	0.2335	0.4958	6.4422	48.9317	GS
0.3238	0.3844	0.3303	0.5597	7.5216	49.4596	AR
0.1629	0.1890	0.1679	0.3863	9.1936	51.4286	AS
0.2907	0.2723	0.3433	0.5449	6.5335	47.7764	MK
0.1498	0.1298	0.2360	0.4478	6.5629	51.1242	MC
0.2073	0.2014	0.2776	0.4945	7.2291	49.4348	EI
0.1057	0.1196	0.1840	0.4800	5.6683	49.3540	VE
1.0000	1.0000	1.0000	1.0000	1.1188	0.0368	SQT

## 96B

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1947	0.1457	0.4664	0.7122	5.0639	58.3564	GS
0.3649	0.3183	0.5392	0.7639	5.5276	57.1729	AR
0.2118	0.2141	0.3404	0.5373	8.0110	54.8723	AS
0.3556	0.3140	0.5279	0.7396	6.1603	57.8218	MK
0.3347	0.2904	0.5479	0.6801	6.5704	58.2872	MC
0.2350	0.2231	0.4190	0.6467	7.0661	55.8191	EI
0.2946	0.1826	0.5488	0.7953	3.1042	58.1197	VE
1.0000	1.0000	1.0000	1.0000	1.0300	0.0180	SQT

## 96D

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3934	0.3960	0.4674	0.7159	6.8096	54.9389	GS
0.4510	0.4429	0.5200	0.7544	6.2233	54.2833	AR
0.4567	0.5337	0.4279	0.6002	9.2596	50.4111	AS
0.4171	0.4218	0.5272	0.7353	7.0555	55.7833	MK
0.4537	0.4875	0.5644	0.7026	8.1365	55.6611	MC
0.3940	0.4496	0.3903	0.6401	8.4928	52.9833	EI
0.3772	0.2977	0.4980	0.7596	3.9529	56.1667	VE
1.0000	1.0000	1.0000	1.0000	1.0172	0.0280	SQT

## 96R

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3105	0.3300	0.3755	0.6451	7.1899	53.2802	GS
0.3353	0.3628	0.4053	0.6652	6.8561	53.1621	AR
0.3587	0.3297	0.4778	0.6124	7.2835	55.7582	AS
0.2479	0.2698	0.3015	0.5927	7.5928	50.7088	MK
0.3249	0.3482	0.4487	0.6266	8.1168	54.8764	MC
0.3311	0.3292	0.4203	0.6364	7.3990	54.0989	EI
0.3583	0.4232	0.4386	0.7037	5.9143	52.9368	VE
1.0000	1.0000	1.0000	1.0000	1.0626	-0.0515	SQT

## 97B

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2607	0.1734	0.5412	0.7175	4.5697	59.5381	GS
0.2572	0.2176	0.4097	0.6740	5.4442	58.7005	AR
0.1414	0.1358	0.3341	0.5103	7.7291	55.6802	AS
0.2585	0.2143	0.4218	0.6614	5.8731	59.1624	MK
0.1962	0.1796	0.4311	0.5874	7.0403	59.0254	MC
0.2400	0.2259	0.4439	0.6346	7.1125	56.5025	EI
0.3424	0.1996	0.6119	0.7918	2.9650	58.4721	VE
1.0000	1.0000	1.0000	1.0000	0.9587	0.0318	SQT

## 97E

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2367	0.1597	0.4359	0.4821	4.5665	61.0175	GS
0.1442	0.0829	0.2957	0.3875	3.6433	61.3099	AR
0.2034	0.1955	0.3413	0.4069	7.6138	52.9825	AS
0.1750	0.1114	0.3467	0.4196	4.4405	62.7251	MK
0.1313	0.1153	0.3195	0.3933	6.6475	60.7719	MC
0.1248	0.1299	0.2908	0.3824	7.7494	57.2865	EI
0.1403	0.0723	0.2881	0.3322	2.5813	59.8421	VE
1.0000	1.0000	1.0000	1.0000	0.9641	-0.0509	SQT

## 98C

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1983	0.1385	0.4428	0.6911	4.7266	60.2752	GS
0.2841	0.1644	0.5716	0.7726	3.6669	61.0388	AR
0.2289	0.2291	0.3544	0.5437	7.9298	55.6202	AS
0.2598	0.1661	0.5429	0.7421	4.4593	62.4922	MK
0.2129	0.1622	0.4869	0.6488	5.7677	61.1318	MC
0.2244	0.2348	0.3947	0.6307	7.7871	57.5388	EI
0.2206	0.1265	0.4790	0.7402	2.8715	59.1628	VE
1.0000	1.0000	1.0000	1.0000	1.0467	-0.0065	SQT

## 98G

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1338	0.0930	0.2494	0.4314	4.7055	60.6171	GS
0.1520	0.1007	0.2663	0.4461	4.1962	60.7920	AR
0.1178	0.1153	0.1736	0.3257	7.7572	55.5804	AS
0.1302	0.0900	0.2309	0.4124	4.8243	62.0664	MK
0.1401	0.1246	0.2493	0.3954	6.7360	60.7797	MC
0.1051	0.1028	0.1964	0.3756	7.2835	57.8601	EI
0.1103	0.0596	0.2303	0.4248	2.7084	59.4108	VE
1.0000	1.0000	1.0000	1.0000	0.9489	0.0171	SQT

## 98H

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1930	0.1748	0.2913	0.5248	6.1278	56.5820	GS
0.2649	0.2610	0.3441	0.5665	6.2432	58.1056	AR
0.1860	0.1898	0.2411	0.4222	8.0858	54.1371	AS
0.2636	0.2630	0.3510	0.5558	6.9623	56.9573	MK
0.1929	0.1887	0.2970	0.4789	7.4106	57.0966	MC
0.2072	0.2120	0.2826	0.4934	7.6155	55.1888	EI
0.1922	0.1685	0.2913	0.5434	4.3915	56.0202	VE
1.0000	1.0000	1.0000	1.0000	1.0180	0.0017	SQT



98Z

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2498	0.2059	0.4019	0.6687	5.5770	56.1831	GS
0.3540	0.3514	0.4947	0.7314	6.2896	56.9155	AR
0.3077	0.3038	0.3824	0.5474	7.8249	53.1737	AS
0.3944	0.3961	0.4947	0.7179	7.0062	57.7465	MK
0.2841	0.2388	0.4975	0.6449	6.3639	57.1831	MC
0.2835	0.3105	0.4100	0.6323	8.1512	54.3709	EI
0.3503	0.2564	0.5271	0.7810	3.6664	56.4178	VE
1.0000	1.0000	1.0000	1.0000	0.9855	0.0570	SQT

## APPENDIX D

**Table D**  
**Uncorrected and Corrected ASVAB Test Validities<sup>1</sup> for Sample B**

11B						
Uncrr	Atten	Army	Youth	STD	MEAN	
0.2388	0.2688	0.2561	0.4125	7.8963	52.3856	GS
0.2455	0.2635	0.2664	0.4277	7.0482	51.7251	AR
0.1853	0.1714	0.2290	0.3622	7.5795	54.4216	AS
0.2761	0.3047	0.2861	0.4273	7.9428	50.5680	MK
0.2585	0.2567	0.2893	0.4140	7.7699	55.0274	MC
0.2299	0.2420	0.2551	0.4025	8.1082	52.0938	EI
0.2264	0.2546	0.2215	0.3854	5.8346	52.5688	VE
1.0000	1.0000	1.0000	1.0000	1.0088	0.0047	SQT

11C						
Uncrr	Atten	Army	Youth	STD	MEAN	
0.3276	0.3422	0.3674	0.5860	7.4107	53.1776	GS
0.3586	0.3808	0.3989	0.6091	7.0556	52.7638	AR
0.2960	0.2648	0.3661	0.5236	7.4145	55.2228	AS
0.3380	0.3713	0.3460	0.5626	7.9966	51.5132	MK
0.3262	0.2999	0.3890	0.5590	7.2762	55.7929	MC
0.3085	0.3127	0.3621	0.5614	7.9002	53.1003	EI
0.3195	0.3314	0.3335	0.5658	5.4449	53.5966	VE
1.0000	1.0000	1.0000	1.0000	0.9781	0.0408	SQT

11H						
Uncrr	Atten	Army	Youth	STD	MEAN	
0.3427	0.4099	0.3582	0.5458	7.9878	53.1941	GS
0.3318	0.3741	0.3630	0.5608	7.0514	53.2601	AR
0.2642	0.2581	0.3133	0.4654	7.6229	55.3452	AS
0.3511	0.4187	0.3595	0.5450	8.1727	51.5858	MK
0.3268	0.3391	0.3590	0.5110	7.7330	55.9227	MC
0.3219	0.3608	0.3481	0.5245	8.2246	53.3322	EI
0.3425	0.4069	0.3366	0.5346	5.8705	53.5297	VE
1.0000	1.0000	1.0000	1.0000	0.9826	0.0100	SQT

11M						
Uncrr	Atten	Army	Youth	STD	MEAN	
0.2674	0.2898	0.2988	0.4516	7.5540	52.6838	GS
0.2542	0.2705	0.2857	0.4508	6.9506	52.2973	AR
0.2005	0.1857	0.2520	0.3916	7.5446	54.4948	AS
0.2668	0.2917	0.2835	0.4332	7.8225	50.7665	MK
0.2689	0.2623	0.3154	0.4439	7.5870	55.0539	MC
0.2571	0.2721	0.2930	0.4400	8.1083	52.5246	EI
0.2338	0.2691	0.2408	0.4015	5.9376	52.8365	VE
1.0000	1.0000	1.0000	1.0000	1.0191	-0.0343	SQT

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<sup>1</sup> Columns represent respectively uncorrected validities, validities corrected for criterion unreliability, validities corrected for Army input into MOS samples, and corrected to the youth population.

## 12B

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3512	0.3968	0.3611	0.5512	7.8779	51.8432	GS
0.3199	0.3378	0.3535	0.5527	6.8958	51.6739	AR
0.2760	0.2699	0.3178	0.4791	7.9649	54.4907	AS
0.3447	0.3881	0.3428	0.5276	8.0526	50.1528	MK
0.3515	0.3525	0.3878	0.5390	7.8019	54.6149	MC
0.3126	0.3300	0.3354	0.5198	8.0868	52.0617	EI
0.3085	0.3460	0.2990	0.5034	5.7860	52.2848	VE
1.0000	1.0000	1.0000	1.0000	0.9760	0.0008	SQT

## 12C

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3129	0.3575	0.3501	0.4847	7.8243	51.1559	GS
0.3152	0.3401	0.3643	0.4976	6.9183	51.2506	AR
0.2772	0.2575	0.3592	0.4744	7.4318	55.5078	AS
0.3252	0.3668	0.3425	0.4719	7.9233	49.7706	MK
0.3531	0.3648	0.4142	0.5218	7.8935	54.2350	MC
0.2787	0.3046	0.3143	0.4601	8.2233	51.8808	EI
0.2559	0.3064	0.2674	0.3997	6.0662	51.6492	VE
1.0000	1.0000	1.0000	1.0000	1.0210	0.0178	SQT

## 12F

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2589	0.2797	0.2899	0.4993	7.5318	50.6498	GS
0.2305	0.2300	0.3078	0.5075	6.5154	50.3430	AR
0.3366	0.3259	0.4017	0.5259	7.8861	54.3466	AS
0.1988	0.2072	0.2270	0.4444	7.4552	48.3646	MK
0.2669	0.2763	0.3485	0.5088	8.0529	52.4513	MC
0.2545	0.2607	0.3174	0.5009	7.8466	50.7942	EI
0.2593	0.3041	0.2656	0.4766	6.0487	51.0614	VE
1.0000	1.0000	1.0000	1.0000	0.9774	-0.0599	SQT

## 13B

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3656	0.4407	0.3472	0.5269	8.3045	48.8571	GS
0.3133	0.3551	0.2861	0.5011	7.3132	50.2510	AR
0.3616	0.4297	0.3079	0.4601	9.5654	50.2870	AS
0.3092	0.3204	0.2977	0.4886	7.3233	49.0495	MK
0.3795	0.4444	0.3591	0.5044	8.9990	50.8606	MC
0.3688	0.4309	0.3407	0.5103	8.8451	49.1880	EI
0.3687	0.4585	0.3245	0.5129	6.3380	50.5475	VE
1.0000	1.0000	1.0000	1.0000	0.9923	0.0037	SQT

## 13C

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3059	0.2807	0.4242	0.6443	6.3793	54.6254	GS
0.3080	0.3592	0.3555	0.6111	7.5919	52.8671	AR
0.3999	0.3898	0.4542	0.6062	7.9155	52.9547	AS
0.3640	0.3629	0.4071	0.6165	7.1100	53.3384	MK
0.3792	0.3681	0.4548	0.6208	7.5270	54.7492	MC
0.3738	0.4109	0.4517	0.6384	8.3944	52.3021	EI
0.2763	0.2400	0.3695	0.6112	4.4660	53.5921	VE
1.0000	1.0000	1.0000	1.0000	1.0428	-0.0869	SQT

## 13E

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3599	0.3894	0.3791	0.6189	7.5198	53.1165	GS
0.4552	0.4478	0.5230	0.7126	6.4054	54.1437	AR
0.2803	0.3012	0.2467	0.4547	8.7284	53.0396	AS
0.4354	0.4515	0.4943	0.6838	7.3965	54.4038	MK
0.3269	0.3241	0.3859	0.5674	7.6880	56.0860	MC
0.3464	0.3671	0.3314	0.5613	8.0936	52.7805	EI
0.3541	0.3948	0.3588	0.6249	5.7333	53.4027	VE
1.0000	1.0000	1.0000	1.0000	1.0065	0.0114	SQT

## 13F

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3719	0.4072	0.3982	0.6134	7.6793	53.2001	GS
0.3533	0.3201	0.4277	0.6453	5.9516	54.4336	AR
0.2991	0.3070	0.3202	0.5010	8.4090	54.6226	AS
0.3606	0.3460	0.4269	0.6263	6.9044	53.5521	MK
0.2960	0.2547	0.3851	0.5593	6.7305	57.1143	MC
0.3617	0.3936	0.3882	0.5869	8.3840	53.2435	EI
0.3717	0.4254	0.3734	0.6089	5.9386	53.1837	VE
1.0000	1.0000	1.0000	1.0000	0.9999	0.0184	SQT

## 13M

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2361	0.2184	0.3555	0.6083	6.6384	53.7647	GS
0.3944	0.4104	0.4433	0.6622	6.9927	52.1933	AR
0.1317	0.0932	0.3115	0.4897	5.9327	57.9888	AS
0.3533	0.4096	0.3806	0.6168	8.5319	51.2577	MK
0.2198	0.1650	0.3545	0.5465	6.0071	57.6162	MC
0.1777	0.1493	0.2917	0.5359	6.6241	54.5294	EI
0.2797	0.2538	0.3630	0.6338	4.8161	54.0448	VE
1.0000	1.0000	1.0000	1.0000	1.0427	-0.0091	SQT

## 13N

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2611	0.2898	0.3422	0.5825	7.3645	53.3506	GS
0.3345	0.4157	0.3883	0.6207	7.7234	53.0175	AR
0.1856	0.1625	0.3193	0.5008	6.7857	57.0749	AS
0.3546	0.4218	0.3914	0.6031	8.0980	51.1052	MK
0.2824	0.2582	0.3941	0.5673	6.7686	56.2303	MC
0.2248	0.2331	0.3191	0.5448	7.5602	54.2295	EI
0.2778	0.3195	0.3419	0.5981	5.6461	53.0948	VE
1.0000	1.0000	1.0000	1.0000	0.9792	0.0277	SQT

## 13R

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2844	0.3144	0.3445	0.5848	7.7087	52.5000	GS
0.3198	0.3567	0.3633	0.5997	7.2833	52.6765	AR
0.2365	0.2028	0.3546	0.5283	6.9854	55.5956	AS
0.2628	0.2982	0.2663	0.5207	8.1164	50.5772	MK
0.2661	0.2800	0.3574	0.5490	8.1860	54.5919	MC
0.2429	0.2594	0.3322	0.5549	8.1811	52.4926	EI
0.2435	0.2681	0.3181	0.5747	5.6794	52.7316	VE
1.0000	1.0000	1.0000	1.0000	1.0668	0.0106	SQT

## 14D

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2693	0.2836	0.3642	0.5745	6.9881	53.2261	GS
0.3572	0.4322	0.4187	0.6054	7.5199	51.5892	AR
0.3140	0.2954	0.4250	0.5508	7.2949	54.9522	AS
0.2468	0.2893	0.2936	0.5229	7.9789	51.3057	MK
0.3125	0.2875	0.4264	0.5784	6.8130	55.7643	MC
0.2531	0.2952	0.3342	0.5355	8.5036	52.5637	EI
0.2478	0.2454	0.3497	0.5597	4.8621	53.8439	VE
1.0000	1.0000	1.0000	1.0000	1.1650	-0.0926	SQT

## 15E

Uncrr	Atten	Army	Youth	STD	MEAN	
0.0274	0.0276	0.1206	0.3626	6.8320	53.9709	GS
0.1160	0.1395	0.2123	0.4395	7.6424	53.9223	AR
0.1148	0.1118	0.2856	0.4305	7.7158	55.6117	AS
0.2846	0.3490	0.3766	0.5255	8.5360	52.8641	MK
0.3045	0.2645	0.4204	0.5368	6.5737	55.8932	MC
0.1463	0.1416	0.2904	0.4598	7.2153	54.3786	EI
0.1004	0.0982	0.2223	0.4604	4.9084	54.2524	VE
1.0000	1.0000	1.0000	1.0000	1.0381	-0.0874	SQT

## 16E

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2600	0.2888	0.3525	0.5591	7.5355	53.7121	GS
0.2971	0.3550	0.3531	0.5641	7.5934	53.5882	AR
0.2484	0.2145	0.3868	0.5404	6.8449	56.2384	AS
0.2750	0.3130	0.3112	0.5168	7.9218	52.3282	MK
0.3300	0.2969	0.4627	0.6047	6.8097	56.0000	MC
0.2693	0.2977	0.3635	0.5528	8.2404	54.6347	EI
0.2025	0.2127	0.3133	0.5252	5.2710	53.5387	VE
1.0000	1.0000	1.0000	1.0000	1.0467	0.0642	SQT

## 16J

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2795	0.3185	0.3251	0.4512	7.7299	53.2564	GS
0.3328	0.4208	0.3412	0.4673	8.0349	52.4231	AR
-0.0478	-0.0379	0.1669	0.3098	6.2853	56.7692	AS
0.2145	0.2514	0.2041	0.3661	8.1606	49.9487	MK
0.2254	0.1833	0.3410	0.4473	6.1561	56.1923	MC
0.0812	0.0831	0.1602	0.3323	7.6328	53.6410	EI
0.2250	0.2497	0.2740	0.3998	5.5714	52.1923	VE
1.0000	1.0000	1.0000	1.0000	0.9655	0.0356	SQT

## 16P

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2898	0.3028	0.4306	0.6452	6.9328	53.6299	GS
0.2933	0.3550	0.3945	0.6277	7.5228	53.1496	AR
0.2214	0.1970	0.4202	0.5821	6.8994	56.7028	AS
0.2442	0.2893	0.3153	0.5584	8.0672	51.2953	MK
0.3395	0.3002	0.5086	0.6561	6.5475	56.7264	MC
0.2783	0.2904	0.4290	0.6231	7.6087	54.1929	EI
0.2438	0.2437	0.3872	0.6135	4.9074	53.8287	VE
1.0000	1.0000	1.0000	1.0000	1.0170	-0.0222	SQT

16R							
Uncrrr	Atten	Army	Youth	STD	MEAN		
0.2912	0.3398	0.3680	0.5306	7.7415	52.5854	GS	
0.3430	0.4290	0.3894	0.5511	7.7726	51.3721	AR	
0.2989	0.2662	0.4326	0.5517	6.9029	56.5843	AS	
0.3239	0.3928	0.3483	0.5102	8.2578	49.9913	MK	
0.3214	0.3039	0.4447	0.5704	6.9992	55.5125	MC	
0.3248	0.3378	0.4209	0.5645	7.5829	53.5528	EI	
0.2595	0.3160	0.3090	0.4687	5.9776	52.5223	VE	
1.0000	1.0000	1.0000	1.0000	1.0310	-0.0269	SQT	

16S							
Uncrrr	Atten	Army	Youth	STD	MEAN		
0.3521	0.4292	0.3543	0.5773	8.0895	50.3258	GS	
0.3952	0.5201	0.3836	0.6139	8.1780	49.6525	AR	
0.2483	0.2563	0.1921	0.4008	8.0015	51.1462	AS	
0.3961	0.4856	0.3844	0.5966	8.3458	48.8177	MK	
0.3808	0.4764	0.3529	0.5226	9.2603	51.3150	MC	
0.3161	0.3788	0.2739	0.5027	8.7364	49.9702	EI	
0.3781	0.4227	0.3822	0.6220	5.4888	51.9946	VE	
1.0000	1.0000	1.0000	1.0000	0.9961	-0.0222	SQT	

19D							
Uncrrr	Atten	Army	Youth	STD	MEAN		
0.3776	0.4310	0.3767	0.5801	7.9584	52.9635	GS	
0.3439	0.3610	0.3668	0.5843	6.8527	52.3960	AR	
0.3063	0.2934	0.3237	0.4869	7.8035	54.9505	AS	
0.3695	0.4179	0.3544	0.5609	8.0900	51.0465	MK	
0.3568	0.3580	0.3798	0.5410	7.8048	54.9865	MC	
0.3682	0.4015	0.3773	0.5603	8.3541	52.7212	EI	
0.3734	0.4323	0.3548	0.5718	5.9711	53.2527	VE	
1.0000	1.0000	1.0000	1.0000	0.9946	-0.0257	SQT	

19E							
Uncrrr	Atten	Army	Youth	STD	MEAN		
0.3846	0.4148	0.4083	0.5773	7.6075	52.9613	GS	
0.3334	0.3506	0.3713	0.5649	6.9460	52.8031	AR	
0.3003	0.2892	0.3426	0.4931	7.9352	55.2785	AS	
0.3171	0.3488	0.3274	0.5208	7.9593	51.1563	MK	
0.3725	0.3594	0.4175	0.5560	7.5923	55.4344	MC	
0.3438	0.3633	0.3696	0.5420	8.1886	53.3031	EI	
0.3662	0.4039	0.3640	0.5396	5.7553	53.1231	VE	
1.0000	1.0000	1.0000	1.0000	0.9982	-0.0012	SQT	

19K							
Uncrrr	Atten	Army	Youth	STD	MEAN		
0.3523	0.3865	0.3627	0.5598	7.7381	52.9188	GS	
0.3797	0.4014	0.4069	0.5940	6.9850	52.8615	AR	
0.3295	0.3166	0.3817	0.5292	7.9170	55.0955	AS	
0.3378	0.3792	0.3255	0.5277	8.1235	51.2935	MK	
0.4093	0.4027	0.4553	0.5952	7.7422	55.5202	MC	
0.3731	0.3986	0.3906	0.5668	8.2781	53.3109	EI	
0.3615	0.4040	0.3346	0.5331	5.8309	53.2349	VE	
1.0000	1.0000	1.0000	1.0000	1.0336	0.0033	SQT	

24Z

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1592	0.1245	0.3108	0.5444	5.3887	57.8815	GS
0.2037	0.1554	0.3438	0.5655	4.9228	58.6676	AR
0.2719	0.2370	0.4003	0.5407	7.0157	59.3757	AS
0.0643	0.0568	0.2079	0.4687	6.2507	57.8988	MK
0.2255	0.1897	0.3752	0.5474	6.4654	59.7572	MC
0.1527	0.1177	0.3266	0.5345	5.8348	60.0665	EI
0.2190	0.1955	0.3253	0.5581	4.5483	55.6474	VE
1.0000	1.0000	1.0000	1.0000	0.9017	0.0657	SQT

25M

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2982	0.3059	0.4459	0.6720	6.5833	55.3671	GS
0.4068	0.5205	0.4604	0.6929	7.6889	53.3430	AR
0.2827	0.3458	0.2909	0.4982	9.1685	51.3140	AS
0.4346	0.5046	0.5264	0.7097	7.6440	54.2126	MK
0.3574	0.3754	0.4613	0.6221	7.5194	55.8696	MC
0.2999	0.3535	0.3990	0.6119	8.3111	52.2754	EI
0.2888	0.2889	0.4174	0.6742	4.7475	55.4396	VE
1.0000	1.0000	1.0000	1.0000	1.0479	-0.0382	SQT

25S

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3554	0.3603	0.4756	0.6674	6.9437	55.2346	GS
0.3488	0.4108	0.3964	0.6465	7.5526	53.1899	AR
0.3357	0.3379	0.2998	0.5007	8.0545	53.7709	AS
0.4587	0.4844	0.5481	0.7081	7.4185	52.8715	MK
0.3502	0.3384	0.4481	0.6024	7.3820	56.2793	MC
0.4013	0.4672	0.4608	0.6380	8.7598	54.3911	EI
0.3251	0.2899	0.4371	0.6582	4.5175	55.0503	VE
1.0000	1.0000	1.0000	1.0000	0.9626	-0.1199	SQT

25Z

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2694	0.2942	0.2309	0.4760	7.4108	54.8772	GS
0.2907	0.3449	0.2858	0.5125	7.5392	53.4795	AR
0.3354	0.3595	0.3688	0.4882	8.4963	52.6316	AS
0.2864	0.2933	0.2844	0.5084	7.1277	53.3918	MK
0.2301	0.2421	0.2340	0.4243	7.9647	54.1053	MC
0.2385	0.2580	0.2703	0.4731	8.0636	52.9649	EI
0.2752	0.2656	0.2804	0.5321	4.8452	55.0175	VE
1.0000	1.0000	1.0000	1.0000	0.9127	0.0033	SQT

27E

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2424	0.2263	0.3633	0.5965	6.4324	52.8571	GS
0.3321	0.3265	0.4206	0.6362	6.3435	53.3002	AR
0.2556	0.2844	0.2944	0.4839	8.9577	53.7409	AS
0.2170	0.2129	0.3178	0.5579	6.9347	52.4262	MK
0.3432	0.3662	0.4099	0.5803	8.2009	53.7312	MC
0.2234	0.2209	0.3196	0.5452	7.4846	54.2324	EI
0.2698	0.2935	0.3487	0.5961	5.5453	51.7797	VE
1.0000	1.0000	1.0000	1.0000	0.9654	0.0026	SQT



27Z

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.1354	0.1213	0.2003	0.5190	6.1721	55.9762	GS
0.2343	0.2220	0.3112	0.5821	6.1137	56.6429	AR
0.1991	0.1960	0.2071	0.4277	7.9247	56.2341	AS
0.2156	0.2108	0.2996	0.5560	6.9117	55.3175	MK
0.2192	0.2169	0.2722	0.4969	7.6040	56.8095	MC
0.1790	0.1478	0.2521	0.5061	6.2530	57.0873	EI
0.1799	0.1733	0.2189	0.5641	4.9102	53.9683	VE
1.0000	1.0000	1.0000	1.0000	1.0316	-0.0972	SQT

29V

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3313	0.2679	0.4222	0.6977	5.6378	58.5026	GS
0.3346	0.2370	0.4235	0.7097	4.6242	59.7628	AR
0.3154	0.2925	0.3535	0.5489	7.5547	58.3571	AS
0.2408	0.1998	0.3420	0.6460	5.9351	60.0510	MK
0.3042	0.2768	0.4378	0.6247	7.0772	59.9286	MC
0.2907	0.2536	0.4032	0.6425	6.6835	59.5281	EI
0.4490	0.4091	0.5175	0.7918	4.6991	56.5230	VE
1.0000	1.0000	1.0000	1.0000	0.9935	0.0086	SQT

29Z

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3671	0.3465	0.4679	0.7160	6.5034	56.4121	GS
0.3834	0.3837	0.4670	0.7271	6.4567	57.5779	AR
0.3676	0.3685	0.4018	0.5837	8.0694	57.5729	AS
0.2964	0.2838	0.4131	0.6751	6.7672	57.2965	MK
0.3792	0.3727	0.4733	0.6497	7.5561	58.1307	MC
0.3729	0.3544	0.4954	0.6925	7.1931	58.1307	EI
0.4438	0.4401	0.4960	0.7600	5.0550	54.8492	VE
1.0000	1.0000	1.0000	1.0000	1.0071	0.0584	SQT

31C

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2911	0.2766	0.3932	0.6186	6.6246	54.4451	GS
0.2760	0.2742	0.3818	0.6253	6.4857	54.6188	AR
0.1761	0.1505	0.3522	0.5219	6.9582	55.7321	AS
0.3054	0.3416	0.3571	0.5925	7.9992	53.2961	MK
0.2446	0.1969	0.4009	0.5727	6.2603	57.1468	MC
0.3160	0.3163	0.4225	0.6114	7.6654	54.4034	EI
0.2935	0.2644	0.4083	0.6447	4.6464	55.0030	VE
1.0000	1.0000	1.0000	1.0000	1.0094	0.0106	SQT

31K

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3165	0.3273	0.3931	0.5963	6.9517	51.6357	GS
0.3421	0.3641	0.3979	0.6147	6.7001	51.1637	AR
0.3363	0.3767	0.3500	0.5155	8.7962	51.0990	AS
0.3487	0.3783	0.3979	0.5954	7.4817	50.2002	MK
0.3845	0.4536	0.4253	0.5790	8.8461	51.6743	MC
0.3281	0.3403	0.4039	0.5877	7.6581	51.5128	EI
0.3496	0.4015	0.3801	0.5941	5.7111	51.9049	VE
1.0000	1.0000	1.0000	1.0000	0.9893	-0.0027	SQT

31L

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2626	0.2488	0.3150	0.5035	6.7213	50.3182	GS
0.2819	0.2703	0.2921	0.4969	6.3709	50.9390	AR
0.4145	0.4604	0.3963	0.5186	9.2069	49.3972	AS
0.2332	0.2122	0.2531	0.4572	6.6245	49.5231	MK
0.3793	0.4246	0.3833	0.5234	8.8604	49.8241	MC
0.3240	0.3125	0.3629	0.5250	7.5172	50.2518	EI
0.3266	0.3416	0.3207	0.5052	5.4903	51.5747	VE
1.0000	1.0000	1.0000	1.0000	0.9852	-0.0200	SQT

31N

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1771	0.1417	0.4094	0.6569	5.5133	55.9724	GS
0.3513	0.2611	0.5806	0.7644	4.7960	57.0706	AR
0.1838	0.1952	0.3073	0.5127	8.5464	53.9049	AS
0.2939	0.2287	0.5319	0.7220	5.4994	56.9908	MK
0.2383	0.2371	0.4251	0.6102	7.6505	56.1534	MC
0.2999	0.2759	0.4872	0.6726	6.9636	56.3926	EI
0.1978	0.1647	0.3867	0.6612	4.2438	55.9509	VE
1.0000	1.0000	1.0000	1.0000	0.9814	0.0404	SQT

31P

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1424	0.1290	0.3282	0.5935	6.2428	51.9807	GS
0.2891	0.2583	0.4290	0.6623	5.7648	52.6834	AR
0.1922	0.2197	0.2654	0.4635	9.2008	50.5019	AS
0.2543	0.2395	0.3753	0.6179	6.6585	51.7915	MK
0.2270	0.2464	0.3261	0.5287	8.3414	51.6680	MC
0.2026	0.2025	0.3448	0.5697	7.5658	52.4054	EI
0.2596	0.2854	0.3691	0.6497	5.6038	52.3938	VE
1.0000	1.0000	1.0000	1.0000	0.9258	0.0107	SQT

31Q

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2962	0.2691	0.3803	0.5901	6.2583	54.0592	GS
0.3082	0.2970	0.3847	0.6062	6.2187	54.0717	AR
0.3603	0.4029	0.3862	0.5421	9.0000	53.1573	AS
0.3179	0.3125	0.3934	0.5920	6.9475	53.3287	MK
0.3887	0.4321	0.4509	0.5993	8.5446	54.4595	MC
0.3307	0.3294	0.4262	0.6031	7.5408	54.3131	EI
0.3105	0.3235	0.3725	0.5896	5.3099	53.3551	VE
1.0000	1.0000	1.0000	1.0000	0.9578	0.0174	SQT

31R

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2656	0.2471	0.3861	0.6112	6.4097	53.2935	GS
0.2976	0.2959	0.3958	0.6261	6.4146	52.9227	AR
0.3097	0.3256	0.3779	0.5453	8.4616	51.8393	AS
0.2584	0.2608	0.3523	0.5798	7.1337	52.7091	MK
0.3608	0.3783	0.4394	0.6029	8.0598	53.3895	MC
0.2837	0.2684	0.4142	0.6076	7.1607	53.2909	EI
0.2935	0.3157	0.3709	0.6076	5.4824	52.9878	VE
1.0000	1.0000	1.0000	1.0000	0.9971	0.0091	SQT

31S

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.1759	0.0851	0.5373	0.7446	3.3318	61.4017	GS
0.2316	0.1012	0.5809	0.7778	2.8196	61.0393	AR
0.1158	0.0989	0.3831	0.5689	6.8779	59.6245	AS
0.1461	0.0889	0.4802	0.7070	4.2981	62.3493	MK
0.1170	0.0757	0.4990	0.6623	4.9758	62.5284	MC
0.0986	0.0593	0.4877	0.6856	4.5512	63.4454	EI
0.1945	0.1141	0.5064	0.7409	2.9906	58.6332	VE
1.0000	1.0000	1.0000	1.0000	1.0666	0.0656	SQT

31V

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2457	0.2310	0.3512	0.5522	6.3604	53.6873	GS
0.2756	0.2782	0.3722	0.5769	6.3941	53.3594	AR
0.3094	0.3292	0.3655	0.5107	8.4076	53.4508	AS
0.2716	0.2771	0.3543	0.5513	7.0808	53.4898	MK
0.3207	0.3357	0.3984	0.5491	7.8980	54.4132	MC
0.2820	0.2813	0.4024	0.5706	7.4121	54.6863	EI
0.2823	0.3019	0.3472	0.5530	5.3512	53.1766	VE
1.0000	1.0000	1.0000	1.0000	1.0270	-0.0303	SQT

35E

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2801	0.2456	0.4732	0.6764	6.0397	57.2872	GS
0.3653	0.2908	0.5371	0.7163	5.1354	58.0319	AR
0.2983	0.2829	0.3750	0.5573	7.6348	57.3447	AS
0.2823	0.2607	0.4518	0.6481	6.5272	57.3277	MK
0.3712	0.3424	0.5176	0.6669	7.0893	58.5723	MC
0.2911	0.2503	0.4461	0.6394	6.5077	59.0085	EI
0.2404	0.2245	0.3733	0.6037	4.7589	55.5213	VE
1.0000	1.0000	1.0000	1.0000	0.9571	0.0062	SQT

35H

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2545	0.1376	0.6775	0.8094	3.7251	60.3595	GS
0.1541	0.0801	0.5991	0.7895	3.3535	60.9346	AR
0.0644	0.0601	0.3605	0.5591	7.5056	58.9673	AS
0.2516	0.1511	0.6735	0.8078	4.2470	61.8301	MK
0.1837	0.1441	0.5812	0.7033	6.0308	60.4902	MC
0.0445	0.0274	0.5643	0.7235	4.6579	62.4444	EI
0.2165	0.1790	0.5754	0.7509	4.2141	57.7908	VE
1.0000	1.0000	1.0000	1.0000	0.8815	0.1116	SQT

35J

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2201	0.1613	0.4864	0.7156	5.0510	57.6324	GS
0.1627	0.1127	0.3924	0.6833	4.4676	58.8382	AR
0.1466	0.1247	0.3092	0.5204	6.8492	58.5084	AS
0.1344	0.1108	0.3802	0.6508	5.8260	58.0735	MK
0.1844	0.1479	0.4174	0.6037	6.1662	58.7836	MC
0.1542	0.1250	0.4211	0.6410	6.1362	59.1282	EI
0.3024	0.2322	0.5199	0.7691	3.9141	56.1282	VE
1.0000	1.0000	1.0000	1.0000	0.9211	0.1036	SQT

## 35N

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2279	0.2102	0.3836	0.6324	6.3545	53.9617	GS
0.2353	0.2062	0.3564	0.6293	5.6556	55.1180	AR
0.2929	0.2891	0.3347	0.5118	7.9454	54.5546	AS
0.1969	0.1585	0.3452	0.6055	5.6883	54.5811	MK
0.3100	0.2883	0.3929	0.5722	7.1490	55.5074	MC
0.2109	0.1915	0.3441	0.5745	6.8759	55.8643	EI
0.3451	0.3394	0.4423	0.6987	5.0125	53.5841	VE
1.0000	1.0000	1.0000	1.0000	0.9863	0.0538	SQT

## 36M

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2495	0.2294	0.3925	0.4902	6.3323	52.4882	GS
0.1175	0.1081	0.2777	0.4252	5.9373	52.8174	AR
0.2523	0.2847	0.3271	0.4489	9.0825	49.8680	AS
0.1366	0.1263	0.2886	0.4093	6.5384	52.8843	MK
0.2889	0.2980	0.3930	0.4913	7.9288	51.4340	MC
0.2417	0.2281	0.3825	0.4906	7.1451	52.0723	EI
0.1469	0.1778	0.2827	0.3794	6.1672	51.8336	VE
1.0000	1.0000	1.0000	1.0000	1.0194	0.0389	SQT

## 41C

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2165	0.1988	0.3726	0.5870	6.3265	50.6211	GS
0.2254	0.2547	0.2925	0.5483	7.2916	50.7143	AR
0.3354	0.3039	0.5126	0.6284	7.2929	52.4534	AS
0.1240	0.1228	0.2526	0.5030	7.0033	49.7826	MK
0.3674	0.3710	0.4968	0.6342	7.7632	50.2857	MC
0.2859	0.2741	0.4874	0.6440	7.2572	51.5963	EI
0.2941	0.3741	0.4088	0.6119	6.4827	49.7516	VE
1.0000	1.0000	1.0000	1.0000	0.9834	0.0599	SQT

## 44B

Uncrr	Atten	Army	Youth	STD	MEAN	
0.4035	0.3781	0.5544	0.7344	6.5724	51.5676	GS
0.3724	0.4008	0.4374	0.6774	7.0692	50.4241	AR
0.5037	0.4627	0.5848	0.6943	7.5261	56.7651	AS
0.3066	0.2845	0.3900	0.6303	6.6772	48.9064	MK
0.4588	0.5076	0.5360	0.6817	8.6566	54.2162	MC
0.4327	0.4209	0.5444	0.7111	7.4933	52.7256	EI
0.4451	0.4443	0.5139	0.7036	5.1793	51.8295	VE
1.0000	1.0000	1.0000	1.0000	1.0000	0.0495	SQT

## 44E

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3852	0.3183	0.5694	0.7290	5.7606	53.8971	GS
0.4573	0.4318	0.5291	0.7207	6.1653	54.1029	AR
0.2276	0.1619	0.4185	0.6034	5.7941	60.5037	AS
0.4644	0.4768	0.5595	0.7073	7.3434	52.0699	MK
0.4241	0.3568	0.5763	0.7075	6.5434	58.3015	MC
0.3758	0.3232	0.5677	0.7190	6.5877	56.7794	EI
0.2360	0.2403	0.4193	0.6155	5.2513	53.2096	VE
1.0000	1.0000	1.0000	1.0000	1.0273	0.0129	SQT

## 45B

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3469	0.3578	0.4169	0.6157	7.1063	53.4626	GS
0.4353	0.4941	0.4495	0.6423	7.3238	50.7046	AR
0.5435	0.5198	0.5546	0.6495	7.6981	55.4342	AS
0.4023	0.3999	0.4141	0.6136	7.0276	49.3843	MK
0.4813	0.5350	0.5242	0.6524	8.5444	53.6228	MC
0.4106	0.4231	0.4822	0.6434	7.7989	53.2954	EI
0.4318	0.4957	0.4257	0.6155	5.8508	52.1352	VE
1.0000	1.0000	1.0000	1.0000	0.9670	-0.0429	SQT

## 45D

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1671	0.1377	0.3244	0.4399	5.6799	53.3846	GS
0.2021	0.2054	0.3047	0.4293	6.5586	51.9385	AR
0.2010	0.1583	0.3525	0.4509	6.3399	58.4538	AS
0.0831	0.0806	0.1957	0.3446	6.8572	49.5962	MK
0.2343	0.2342	0.3674	0.4692	7.6801	55.7346	MC
0.1705	0.1404	0.3625	0.4700	6.2351	55.1962	EI
0.1357	0.1461	0.2610	0.3645	5.4892	52.3923	VE
1.0000	1.0000	1.0000	1.0000	1.0560	-0.0002	SQT

## 45E

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3217	0.3476	0.3800	0.5410	7.4892	50.9841	GS
0.2264	0.2450	0.2550	0.4672	7.0223	50.6614	AR
0.2363	0.2076	0.3336	0.4779	7.1141	55.7530	AS
0.2874	0.3134	0.3093	0.4805	7.7534	49.4821	MK
0.2780	0.2483	0.3745	0.5119	6.9047	54.8088	MC
0.2713	0.2560	0.3772	0.5257	7.1861	53.3347	EI
0.2993	0.3407	0.2989	0.4731	5.8370	51.3307	VE
1.0000	1.0000	1.0000	1.0000	1.0344	-0.0433	SQT

## 45K

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1278	0.1047	0.3250	0.5811	5.7141	54.6463	GS
0.4042	0.4387	0.4768	0.6757	7.0886	51.1250	AR
0.2593	0.2138	0.4085	0.5579	6.7172	58.2819	AS
0.2891	0.2918	0.3683	0.6021	7.2204	50.5638	MK
0.2917	0.2603	0.4120	0.5887	6.9406	55.7899	MC
0.2321	0.1828	0.3772	0.5901	6.0328	55.8644	EI
0.2247	0.2117	0.3533	0.6115	4.8595	53.2447	VE
1.0000	1.0000	1.0000	1.0000	1.0323	-0.0154	SQT

## 45L

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2760	0.2286	0.5194	0.6797	5.7055	52.5194	GS
0.2640	0.2817	0.4223	0.6297	6.8838	51.1796	AR
0.2093	0.1656	0.4546	0.6028	6.3674	57.5194	AS
0.3102	0.3174	0.4592	0.6290	7.2319	50.0388	MK
0.4036	0.3966	0.5740	0.6898	7.5529	54.2476	MC
0.1989	0.1448	0.4693	0.6370	5.5105	54.0049	EI
0.2170	0.2138	0.4170	0.5929	5.0208	52.1602	VE
1.0000	1.0000	1.0000	1.0000	0.9224	0.0100	SQT

## 45N

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2876	0.3173	0.3467	0.6017	7.6468	51.4015	GS
0.3519	0.3842	0.3921	0.6443	7.0875	52.2162	AR
0.3263	0.2709	0.4462	0.5943	6.7222	58.0425	AS
0.3812	0.4171	0.3928	0.6232	7.7807	50.1622	MK
0.2751	0.2558	0.4326	0.6055	7.1891	55.9151	MC
0.3374	0.2994	0.4892	0.6651	6.7570	55.3900	EI
0.3619	0.4484	0.4004	0.6559	6.3519	51.0811	VE
1.0000	1.0000	1.0000	1.0000	1.0429	0.0052	SQT

## 45T

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2940	0.2751	0.4911	0.6723	6.4477	52.1667	GS
0.4014	0.4715	0.4883	0.6800	7.5791	50.4573	AR
0.3390	0.3255	0.4335	0.5704	7.7284	55.3419	AS
0.2732	0.2727	0.3685	0.6002	7.0538	49.2137	MK
0.3757	0.4545	0.4447	0.6007	9.2982	52.1667	MC
0.2488	0.2320	0.4258	0.6150	7.0575	53.5684	EI
0.3257	0.3214	0.4697	0.6570	5.0286	52.1154	VE
1.0000	1.0000	1.0000	1.0000	1.0105	0.0167	SQT

## 46Z

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2548	0.1743	0.4915	0.6700	4.7698	59.2358	GS
0.2230	0.1828	0.3640	0.6161	5.3544	58.6681	AR
0.1848	0.1668	0.2550	0.4420	7.3514	52.9039	AS
0.3183	0.2791	0.4832	0.6707	6.2734	58.6638	MK
0.1257	0.1100	0.3026	0.4880	6.8067	56.8952	MC
0.2024	0.1957	0.3734	0.5675	7.4084	55.1397	EI
0.2256	0.1178	0.4649	0.6780	2.6945	59.0524	VE
1.0000	1.0000	1.0000	1.0000	1.0060	-0.0507	SQT

## 51B

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2253	0.2056	0.3420	0.5584	6.3604	51.8102	GS
0.3340	0.3602	0.3735	0.5836	7.0412	51.2196	AR
0.3206	0.2966	0.4076	0.5545	7.5372	54.9829	AS
0.3023	0.3033	0.3500	0.5505	7.1762	50.1716	MK
0.3858	0.3997	0.4597	0.6051	8.0601	53.7260	MC
0.2426	0.2225	0.3679	0.5605	7.0246	52.0576	EI
0.2480	0.2380	0.3201	0.5408	4.9494	52.0235	VE
1.0000	1.0000	1.0000	1.0000	0.9570	0.0381	SQT

## 51K

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2307	0.2182	0.4034	0.5337	6.5158	51.1061	GS
0.3034	0.3445	0.3374	0.4908	7.3260	50.5837	AR
0.3434	0.3227	0.4190	0.5362	7.5628	53.9837	AS
0.2995	0.2836	0.3314	0.4682	6.6913	49.1837	MK
0.3673	0.3840	0.4495	0.5618	8.0360	51.4000	MC
0.2833	0.2610	0.4413	0.5582	6.9746	51.8612	EI
0.1577	0.1683	0.2710	0.4031	5.4416	51.7224	VE
1.0000	1.0000	1.0000	1.0000	1.0485	0.0224	SQT

51M							
Uncrr	Atten	Army	Youth	STD	MEAN		
0.0621	0.0542	0.1648	0.4177	6.0042	52.7301	GS	
0.2259	0.2544	0.2161	0.4541	7.2654	51.2883	AR	
0.2713	0.2359	0.2849	0.4300	6.9969	56.3497	AS	
0.1919	0.1835	0.1898	0.4246	6.7593	48.4110	MK	
0.2032	0.2337	0.2194	0.4070	8.8405	54.0184	MC	
0.2422	0.2571	0.2646	0.4567	8.0375	52.2147	EI	
0.2150	0.2259	0.2213	0.4810	5.3552	52.3681	VE	
1.0000	1.0000	1.0000	1.0000	1.0134	0.0236	SQT	

51R							
Uncrr	Atten	Army	Youth	STD	MEAN		
0.1950	0.1736	0.3291	0.5661	6.1334	53.1532	GS	
0.1945	0.1814	0.3521	0.5928	6.0192	54.0811	AR	
0.3574	0.3498	0.4242	0.5735	7.8787	55.2763	AS	
0.3153	0.2862	0.4179	0.6104	6.4160	53.3393	MK	
0.3287	0.3249	0.4321	0.5932	7.5966	55.9580	MC	
0.3199	0.2988	0.4430	0.6193	7.0710	55.7297	EI	
0.2506	0.2487	0.3327	0.5783	5.0594	52.7117	VE	
1.0000	1.0000	1.0000	1.0000	1.0258	-0.0245	SQT	

51T							
Uncrr	Atten	Army	Youth	STD	MEAN		
0.2058	0.1723	0.3393	0.4369	5.6813	56.1266	GS	
0.2038	0.2321	0.2744	0.4062	7.2357	55.8354	AR	
0.3062	0.3198	0.3943	0.4567	8.2782	54.9241	AS	
0.2925	0.2940	0.4007	0.4909	6.9962	56.8797	MK	
0.1512	0.1587	0.2707	0.3712	7.9470	58.2722	MC	
0.2594	0.2448	0.4163	0.4905	7.0332	55.6835	EI	
0.1493	0.1297	0.2918	0.3892	4.3604	55.0063	VE	
1.0000	1.0000	1.0000	1.0000	1.0179	0.0103	SQT	

52C							
Uncrr	Atten	Army	Youth	STD	MEAN		
0.1820	0.1448	0.4749	0.6933	5.4782	53.8148	GS	
0.2577	0.2774	0.4003	0.6572	6.9457	52.0947	AR	
0.2429	0.2037	0.4445	0.6034	6.7516	57.4239	AS	
0.1742	0.1670	0.3604	0.6118	6.7769	51.3992	MK	
0.2729	0.2672	0.4556	0.6303	7.5256	55.1193	MC	
0.2689	0.2120	0.5035	0.6810	5.9671	55.5185	EI	
0.2409	0.2181	0.4291	0.6711	4.6155	53.1070	VE	
1.0000	1.0000	1.0000	1.0000	1.0386	-0.0707	SQT	

52D							
Uncrr	Atten	Army	Youth	STD	MEAN		
0.2755	0.2280	0.5240	0.7172	5.7711	53.8124	GS	
0.4552	0.4921	0.5555	0.7441	7.0593	52.0226	AR	
0.3114	0.2680	0.5596	0.6897	7.0081	57.4637	AS	
0.3555	0.3774	0.4826	0.6808	7.5939	51.7256	MK	
0.4381	0.4248	0.5962	0.7293	7.5431	55.5050	MC	
0.3785	0.3125	0.6083	0.7542	6.3236	55.7408	EI	
0.2827	0.2720	0.4513	0.6592	4.9636	53.0143	VE	
1.0000	1.0000	1.0000	1.0000	1.0033	-0.0142	SQT	

## 54B

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3752	0.3572	0.4905	0.7100	6.3982	54.5890	GS
0.5013	0.5978	0.5229	0.7386	7.5063	52.3606	AR
0.4694	0.4953	0.5316	0.6687	8.2845	53.0409	AS
0.4365	0.5049	0.4706	0.6872	7.9761	52.6882	MK
0.5218	0.5306	0.6039	0.7327	7.6257	55.3197	MC
0.4989	0.5534	0.5695	0.7341	8.1913	53.0031	EI
0.3689	0.3422	0.4760	0.7040	4.6132	54.5118	VE
1.0000	1.0000	1.0000	1.0000	1.0067	0.0477	SQT

## 55B

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3262	0.2958	0.4360	0.6767	6.4318	52.5438	GS
0.4233	0.5040	0.4384	0.6865	7.9107	50.1901	AR
0.2004	0.1708	0.3385	0.5305	7.0651	54.3360	AS
0.3612	0.3830	0.3806	0.6354	7.7159	49.8621	MK
0.3742	0.4091	0.4066	0.5964	8.6512	51.9134	MC
0.3140	0.2735	0.4244	0.6348	6.7898	52.6331	EI
0.3838	0.3962	0.4317	0.6954	5.4178	52.4403	VE
1.0000	1.0000	1.0000	1.0000	0.9643	0.0142	SQT

## 55D

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3059	0.2187	0.5019	0.6778	4.9262	58.3403	GS
0.2070	0.1817	0.3451	0.6066	5.6640	57.2251	AR
0.1901	0.1464	0.3913	0.5399	6.1976	58.3246	AS
0.0705	0.0685	0.2461	0.5312	6.8747	56.9686	MK
0.2405	0.2125	0.3824	0.5513	6.7934	59.0838	MC
0.1684	0.1425	0.3722	0.5808	6.4050	57.8639	EI
0.3691	0.3249	0.5421	0.7194	4.4862	56.7696	VE
1.0000	1.0000	1.0000	1.0000	1.0782	-0.0827	SQT

## 55G

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3577	0.3487	0.4054	0.5793	6.7155	54.6061	GS
0.3784	0.4130	0.4183	0.5891	7.0430	54.2626	AR
0.1013	0.1075	0.2169	0.3875	8.5414	52.9394	AS
0.3558	0.3639	0.4260	0.5883	7.2288	54.7778	MK
0.2122	0.2426	0.2981	0.4628	8.7862	53.1616	MC
0.1325	0.1220	0.3296	0.5027	6.9688	54.6869	EI
0.2296	0.2501	0.3049	0.5110	5.5537	53.6465	VE
1.0000	1.0000	1.0000	1.0000	0.9417	0.0907	SQT

## 57E

Uncrr	Atten	Army	Youth	STD	MEAN	
0.0617	0.0504	0.2828	0.4081	5.6323	45.6923	GS
0.0241	0.0209	0.2064	0.3545	5.6008	44.0247	AR
0.1824	0.1454	0.3524	0.4471	6.4160	45.7885	AS
0.0008	0.0006	0.1822	0.3232	5.1517	44.3434	MK
0.1813	0.1527	0.3326	0.4380	6.4760	43.5934	MC
0.1414	0.1009	0.3427	0.4465	5.4035	46.1841	EI
0.0413	0.0411	0.2097	0.3292	5.0714	47.8269	VE
1.0000	1.0000	1.0000	1.0000	0.9297	0.0097	SQT



62B							
Uncrr	Atten	Army	Youth	STD	MEAN		
0.4220	0.4385	0.4530	0.6559	7.4546	49.9972	GS	
0.4362	0.4462	0.4210	0.6399	6.8738	50.4805	AR	
0.5351	0.5338	0.5668	0.6862	8.3613	56.0000	AS	
0.3495	0.3292	0.3622	0.5824	6.9333	48.3994	MK	
0.4836	0.4895	0.5368	0.6820	8.1008	53.5878	MC	
0.4782	0.4565	0.5427	0.6986	7.5254	52.1748	EI	
0.3945	0.4051	0.3845	0.5948	5.4502	50.8643	VE	
1.0000	1.0000	1.0000	1.0000	1.0316	-0.0158	SQT	

62E							
Uncrr	Atten	Army	Youth	STD	MEAN		
0.3420	0.3384	0.4651	0.6234	6.6508	52.1940	GS	
0.3445	0.3749	0.3977	0.5862	6.8501	51.3638	AR	
0.3828	0.3359	0.4947	0.6174	6.8894	57.7632	AS	
0.3096	0.3264	0.3608	0.5439	7.2707	49.3124	MK	
0.3849	0.3990	0.5039	0.6328	7.7724	54.9772	MC	
0.3137	0.3082	0.4606	0.6161	7.2544	53.5235	EI	
0.3094	0.3127	0.3708	0.5330	5.0250	52.3923	VE	
1.0000	1.0000	1.0000	1.0000	0.9869	-0.0008	SQT	

62F							
Uncrr	Atten	Army	Youth	STD	MEAN		
0.3056	0.2432	0.4544	0.6063	5.4825	50.3636	GS	
0.3498	0.3718	0.3892	0.5740	6.8575	49.9132	AR	
0.4149	0.3928	0.4794	0.6073	7.6206	55.5537	AS	
0.3573	0.3587	0.3594	0.5326	7.0963	47.5992	MK	
0.5141	0.6030	0.5767	0.6803	9.0147	51.7562	MC	
0.4527	0.4527	0.5517	0.6685	7.5705	51.6322	EI	
0.3542	0.3268	0.3755	0.5230	4.7023	51.2810	VE	
1.0000	1.0000	1.0000	1.0000	1.0379	-0.0501	SQT	

62J							
Uncrr	Atten	Army	Youth	STD	MEAN		
0.2851	0.2835	0.4278	0.5947	6.6844	51.2255	GS	
0.3154	0.3693	0.3838	0.5715	7.3700	50.6495	AR	
0.3359	0.3076	0.4701	0.5962	7.1912	55.5392	AS	
0.2606	0.2787	0.3261	0.5161	7.3751	49.4706	MK	
0.3320	0.3570	0.4505	0.5926	8.0647	53.1912	MC	
0.2861	0.2610	0.4607	0.6112	6.7364	51.9387	EI	
0.2599	0.2672	0.3390	0.5107	5.1114	51.7132	VE	
1.0000	1.0000	1.0000	1.0000	1.0478	-0.0047	SQT	

63B							
Uncrr	Atten	Army	Youth	STD	MEAN		
0.4477	0.4959	0.4624	0.6082	7.6314	49.1389	GS	
0.3955	0.4262	0.3919	0.5646	6.9535	49.5771	AR	
0.5947	0.6291	0.6537	0.7336	8.5139	54.7594	AS	
0.3094	0.3181	0.3001	0.4862	7.2661	48.0330	MK	
0.4912	0.5189	0.5598	0.6756	8.1187	52.5957	MC	
0.4887	0.4993	0.5647	0.6831	7.7328	51.2440	EI	
0.3794	0.4138	0.3640	0.4959	5.5596	50.4694	VE	
1.0000	1.0000	1.0000	1.0000	0.9932	-0.0043	SQT	

## 63D

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2536	0.2418	0.4487	0.6577	6.6073	52.4278	GS
0.2879	0.3007	0.4037	0.6333	6.7804	51.6232	AR
0.3897	0.2697	0.6409	0.7376	5.6029	60.1954	AS
0.2511	0.2554	0.3143	0.5578	7.2338	49.7218	MK
0.3335	0.2407	0.6049	0.7312	5.5824	57.9525	MC
0.2536	0.2041	0.5323	0.6984	6.1288	55.7852	EI
0.2781	0.2754	0.4177	0.6199	5.0770	52.5440	VE
1.0000	1.0000	1.0000	1.0000	1.0022	-0.0419	SQT

## 63E

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3220	0.3660	0.4669	0.6596	7.3939	52.2212	GS
0.2902	0.3288	0.3955	0.6198	6.9018	51.9826	AR
0.4441	0.3734	0.6744	0.7670	6.3897	58.6509	AS
0.2758	0.3184	0.3259	0.5506	7.7067	50.2133	MK
0.3785	0.3628	0.6053	0.7327	6.9562	56.4313	MC
0.4183	0.4277	0.6160	0.7474	7.3073	54.4060	EI
0.3301	0.3731	0.3929	0.5833	5.4380	52.0284	VE
1.0000	1.0000	1.0000	1.0000	1.0069	0.0146	SQT

## 63G

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1813	0.1883	0.3689	0.6309	7.2410	52.7618	GS
0.1916	0.2043	0.3523	0.6191	6.9616	52.2825	AR
0.3322	0.2802	0.5575	0.6806	6.8690	58.1662	AS
0.0979	0.1054	0.2361	0.5289	7.6980	51.1884	MK
0.2317	0.1847	0.4580	0.6419	6.1993	57.1247	MC
0.2647	0.2220	0.4990	0.6829	6.4251	55.5457	EI
0.2134	0.2205	0.3554	0.6232	5.3292	52.4875	VE
1.0000	1.0000	1.0000	1.0000	1.0607	-0.0575	SQT

## 63H

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3456	0.3913	0.3354	0.5443	7.8475	48.6745	GS
0.3843	0.4210	0.3902	0.5880	7.1125	49.4878	AR
0.3502	0.3771	0.3040	0.4625	8.7176	54.2647	AS
0.3519	0.3575	0.3612	0.5589	7.2250	47.2801	MK
0.3914	0.4385	0.3956	0.5440	8.6649	52.1541	MC
0.2994	0.3127	0.3041	0.5052	7.9529	51.0444	EI
0.3551	0.3952	0.3424	0.5578	5.7062	50.7117	VE
1.0000	1.0000	1.0000	1.0000	0.9671	0.0195	SQT

## 63J

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2646	0.2831	0.3078	0.5491	7.4169	46.2487	GS
0.3283	0.3459	0.3349	0.5668	6.8399	47.3339	AR
0.3771	0.3879	0.4240	0.5662	8.3290	48.7746	AS
0.2648	0.2499	0.2926	0.5235	6.7094	46.2905	MK
0.3356	0.3434	0.4115	0.5781	7.9144	48.7028	MC
0.2747	0.2603	0.3540	0.5573	7.2132	47.9866	EI
0.2588	0.2824	0.3025	0.5488	5.5952	49.1152	VE
1.0000	1.0000	1.0000	1.0000	1.0338	0.0369	SQT

63N

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3142	0.3194	0.4388	0.6429	7.0461	50.9739	GS
0.3522	0.3817	0.3978	0.6182	7.0348	50.5159	AR
0.4718	0.3818	0.6373	0.7369	6.5537	57.9971	AS
0.2888	0.2784	0.3195	0.5471	6.8552	48.9826	MK
0.3969	0.3241	0.5905	0.7206	6.3143	55.4493	MC
0.3509	0.3103	0.5357	0.6950	6.7328	53.1652	EI
0.3096	0.3375	0.3763	0.5779	5.5892	51.4928	VE
1.0000	1.0000	1.0000	1.0000	0.9682	-0.0283	SQT

63S

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2582	0.2584	0.4176	0.6221	6.9348	51.9029	GS
0.2526	0.2520	0.3654	0.5936	6.4751	52.1404	AR
0.3796	0.2474	0.5970	0.6925	5.2762	60.5745	AS
0.2293	0.2338	0.2902	0.5314	7.2500	49.7860	MK
0.2175	0.1611	0.4750	0.6298	5.7293	57.7201	MC
0.2633	0.2164	0.4824	0.6517	6.2590	55.7062	EI
0.2917	0.2974	0.3983	0.5976	5.2266	51.9133	VE
1.0000	1.0000	1.0000	1.0000	1.0094	0.0298	SQT

63T

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2379	0.2282	0.4081	0.6040	6.6876	52.7680	GS
0.2338	0.2448	0.3531	0.5702	6.8363	52.4370	AR
0.3315	0.2104	0.5868	0.6872	5.1713	60.6292	AS
0.1893	0.1998	0.2623	0.4948	7.5492	50.2584	MK
0.2439	0.1853	0.4833	0.6325	5.9085	58.0450	MC
0.2408	0.1933	0.4829	0.6442	6.1503	55.6896	EI
0.2437	0.2399	0.3582	0.5497	5.0784	52.6228	VE
1.0000	1.0000	1.0000	1.0000	0.9970	0.0055	SQT

63W

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.4350	0.4870	0.4724	0.6595	7.7600	48.4369	GS
0.4515	0.4994	0.4393	0.6491	7.1789	49.3177	AR
0.5409	0.5692	0.5571	0.6721	8.5214	54.5610	AS
0.3827	0.3920	0.3681	0.5874	7.2836	47.5837	MK
0.5356	0.5826	0.5788	0.7016	8.4113	52.1440	MC
0.4620	0.4729	0.5249	0.6836	7.7936	50.8652	EI
0.4607	0.5118	0.4478	0.6297	5.6962	50.0305	VE
1.0000	1.0000	1.0000	1.0000	1.0197	-0.0265	SQT

63Y

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2931	0.2897	0.4671	0.6653	6.8502	52.3502	GS
0.3240	0.3401	0.4633	0.6648	6.8134	52.4692	AR
0.4312	0.3124	0.6805	0.7677	5.8660	60.4097	AS
0.2541	0.2582	0.3393	0.5699	7.2248	50.1013	MK
0.3838	0.2891	0.6314	0.7524	5.8252	58.0308	MC
0.3485	0.2887	0.5953	0.7394	6.3096	55.6806	EI
0.2981	0.3212	0.4167	0.6059	5.5249	52.2907	VE
1.0000	1.0000	1.0000	1.0000	1.0054	0.0146	SQT

## 67N

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3026	0.2792	0.4409	0.6575	6.3948	55.1597	GS
0.3024	0.3068	0.4098	0.6450	6.5853	54.3690	AR
0.3059	0.2276	0.5461	0.6716	6.0259	59.5160	AS
0.3178	0.3475	0.3954	0.6137	7.7744	53.3946	MK
0.3048	0.2321	0.5215	0.6720	5.8889	59.4920	MC
0.2569	0.2081	0.4755	0.6622	6.1670	57.4712	EI
0.2990	0.2858	0.3970	0.6236	4.9001	54.4217	VE
1.0000	1.0000	1.0000	1.0000	1.0003	-0.0301	SQT

## 67R

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2624	0.2699	0.3974	0.6342	7.1296	53.1667	GS
0.3201	0.3160	0.4687	0.6835	6.4085	52.8426	AR
0.3188	0.2540	0.4921	0.6382	6.4503	56.6019	AS
0.3006	0.3373	0.3833	0.6101	7.9789	52.9630	MK
0.3029	0.2668	0.4779	0.6465	6.8110	56.2778	MC
0.3005	0.2695	0.4681	0.6617	6.8284	54.0926	EI
0.2463	0.2602	0.3685	0.6167	5.4180	53.1389	VE
1.0000	1.0000	1.0000	1.0000	0.9578	0.0451	SQT

## 67T

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2908	0.2708	0.4389	0.6690	6.4543	55.2542	GS
0.3516	0.3644	0.4506	0.6863	6.7276	54.2319	AR
0.2761	0.1952	0.4907	0.6247	5.7243	59.6667	AS
0.3383	0.3777	0.3826	0.6313	7.9389	53.3181	MK
0.2905	0.2299	0.4834	0.6445	6.1202	59.0847	MC
0.2846	0.2333	0.4701	0.6633	6.2432	57.6528	EI
0.3688	0.3540	0.4670	0.6988	4.9221	54.4764	VE
1.0000	1.0000	1.0000	1.0000	1.0299	-0.0301	SQT

## 67U

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3281	0.3086	0.4620	0.6977	6.5175	54.9454	GS
0.3335	0.3502	0.4620	0.7035	6.8162	54.2357	AR
0.2451	0.1919	0.4767	0.6317	6.3393	59.2077	AS
0.3200	0.3352	0.4198	0.6569	7.4488	53.5206	MK
0.3027	0.2230	0.5237	0.6818	5.6978	59.1798	MC
0.2708	0.2258	0.4732	0.6759	6.3500	57.5553	EI
0.3357	0.3308	0.4339	0.6890	5.0519	54.4447	VE
1.0000	1.0000	1.0000	1.0000	0.9715	-0.0183	SQT

## 67V

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2479	0.2241	0.3526	0.5992	6.5210	55.6203	GS
0.2610	0.2521	0.3454	0.6020	6.5240	54.3759	AR
0.2023	0.1500	0.3646	0.5315	6.2473	59.4640	AS
0.2457	0.2537	0.3176	0.5669	7.6412	53.7432	MK
0.2613	0.1889	0.4153	0.5859	5.8178	59.7022	MC
0.2111	0.1676	0.3678	0.5793	6.2926	57.5496	EI
0.2929	0.2782	0.3738	0.6295	5.0693	54.6948	VE
1.0000	1.0000	1.0000	1.0000	0.9163	0.0203	SQT

67Y

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3081	0.2847	0.4791	0.6808	6.4054	55.5576	GS
0.2697	0.2547	0.4043	0.6450	6.1291	54.3086	AR
0.2641	0.1879	0.5223	0.6579	5.7618	59.1413	AS
0.2639	0.2875	0.3678	0.5986	7.7485	53.5465	MK
0.3142	0.2370	0.5514	0.6909	5.8346	58.9981	MC
0.3290	0.2680	0.5301	0.6947	6.2033	57.2193	EI
0.2866	0.2639	0.4313	0.6428	4.7213	54.8178	VE
1.0000	1.0000	1.0000	1.0000	0.9371	0.0294	SQT

68B

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.1965	0.1984	0.1945	0.3121	7.0393	55.1871	GS
0.1336	0.1365	0.0905	0.2606	6.6726	54.5204	AR
0.0690	0.0548	0.0495	0.1639	6.4651	59.1769	AS
0.2072	0.2327	0.2043	0.3274	8.0335	53.5850	MK
0.0963	0.0789	0.0386	0.1584	6.3729	59.2687	MC
0.0819	0.0695	0.0488	0.1945	6.4973	57.4558	EI
0.1853	0.1831	0.2082	0.3501	5.0961	54.9218	VE
1.0000	1.0000	1.0000	1.0000	1.3203	-0.0821	SQT

68D

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2301	0.2158	0.3496	0.5864	6.5016	55.4412	GS
0.2459	0.2445	0.3148	0.5774	6.4537	53.7941	AR
0.2537	0.1783	0.4016	0.5358	5.6901	59.9706	AS
0.2990	0.3219	0.3366	0.5790	7.6569	51.8912	MK
0.2072	0.1573	0.3456	0.5240	5.8707	58.6824	MC
0.1564	0.1237	0.2832	0.5176	6.0254	57.3324	EI
0.3434	0.3525	0.4172	0.6564	5.2624	53.7824	VE
1.0000	1.0000	1.0000	1.0000	1.0888	-0.0687	SQT

68F

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3398	0.3097	0.4866	0.7042	6.3182	56.3415	GS
0.2981	0.2888	0.4364	0.6887	6.2881	55.8841	AR
0.1714	0.1260	0.3738	0.5671	5.9559	58.5884	AS
0.2560	0.2618	0.4003	0.6411	7.2701	55.3384	MK
0.2995	0.2284	0.4832	0.6498	5.8972	59.2805	MC
0.2775	0.2293	0.4831	0.6748	6.2944	58.2165	EI
0.3150	0.3208	0.4482	0.6923	5.2218	55.2104	VE
1.0000	1.0000	1.0000	1.0000	1.0746	-0.0315	SQT

68G

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3713	0.3530	0.4799	0.6751	6.5499	55.1394	GS
0.5136	0.5303	0.6012	0.7570	6.6616	54.5601	AR
0.1884	0.1364	0.3515	0.5344	5.8244	60.4399	AS
0.4511	0.4971	0.5216	0.6968	7.7897	52.9904	MK
0.4056	0.3031	0.5311	0.6689	5.7435	59.2500	MC
0.2876	0.2270	0.4456	0.6376	5.9738	57.7861	EI
0.3286	0.3190	0.4205	0.6344	4.9489	54.6370	VE
1.0000	1.0000	1.0000	1.0000	0.9455	-0.0359	SQT

## 68J

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2975	0.2531	0.4159	0.6486	6.0358	55.0559	GS
0.3188	0.2972	0.4323	0.6710	6.1947	54.0154	AR
0.1955	0.1748	0.3162	0.5071	7.4071	56.1561	AS
0.2632	0.2672	0.3838	0.6251	7.3903	53.9942	MK
0.2791	0.2406	0.3817	0.5694	6.8231	57.2659	MC
0.1728	0.1463	0.3442	0.5783	6.6011	56.5164	EI
0.3354	0.3312	0.4250	0.6761	5.1832	54.0713	VE
1.0000	1.0000	1.0000	1.0000	0.8953	0.0309	SQT

## 68M

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3194	0.3013	0.5083	0.6596	6.5004	53.6649	GS
0.1502	0.1687	0.2602	0.5135	7.2439	52.8454	AR
0.3759	0.3369	0.5618	0.6869	7.2143	55.9278	AS
0.1382	0.1615	0.2312	0.4580	8.2613	51.9330	MK
0.4234	0.4158	0.5937	0.7066	7.5492	54.7423	MC
0.3389	0.2833	0.5393	0.6774	6.3266	54.7216	EI
0.2810	0.3277	0.4025	0.5553	5.9438	52.5258	VE
1.0000	1.0000	1.0000	1.0000	0.8727	0.0453	SQT

## 68N

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2999	0.2680	0.3908	0.6361	6.0451	53.7202	GS
0.3615	0.3823	0.4187	0.6742	6.6986	54.0046	AR
0.2076	0.2351	0.2027	0.4247	8.9522	52.1835	AS
0.4492	0.4706	0.5295	0.7189	7.2714	53.8257	MK
0.3063	0.3494	0.3429	0.5317	8.6089	53.0826	MC
0.2720	0.2874	0.2933	0.5425	7.8524	53.6927	EI
0.3915	0.4105	0.4570	0.7221	5.2473	53.7844	VE
1.0000	1.0000	1.0000	1.0000	1.0254	-0.0049	SQT

## 68Z

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2658	0.2420	0.4401	0.6964	6.2734	55.2725	GS
0.4887	0.4687	0.6002	0.7896	6.1887	55.1913	AR
0.2477	0.2790	0.2073	0.4560	9.0654	53.6870	AS
0.4173	0.3925	0.5400	0.7448	6.6482	55.4870	MK
0.3686	0.3825	0.4446	0.6213	7.9761	56.1275	MC
0.2099	0.2022	0.3355	0.5969	7.2908	56.4522	EI
0.3221	0.3498	0.4684	0.7495	5.5359	54.2261	VE
1.0000	1.0000	1.0000	1.0000	1.0406	-0.0214	SQT

## 71D

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.1968	0.1694	0.3956	0.6544	6.0741	56.2352	GS
0.2824	0.1921	0.5272	0.7452	4.4935	58.4325	AR
0.0708	0.0673	0.1391	0.3950	7.8332	51.7299	AS
0.2998	0.2182	0.5863	0.7634	5.2670	58.8710	MK
0.1830	0.1809	0.3558	0.5482	7.7781	55.5979	MC
0.1895	0.1910	0.3344	0.5766	7.8076	53.2853	EI
0.2230	0.1602	0.4782	0.7544	3.7485	57.3126	VE
1.0000	1.0000	1.0000	1.0000	0.9777	0.0292	SQT

## 71G

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2394	0.2711	0.3538	0.6013	7.8488	48.9222	GS
0.2033	0.1955	0.3655	0.6210	6.2430	51.2827	AR
0.0908	0.0974	0.1047	0.3440	8.6816	46.6698	AS
0.1247	0.1092	0.3421	0.5952	6.2261	50.7362	MK
0.1300	0.1491	0.2242	0.4456	8.8700	48.4478	MC
0.2095	0.2258	0.2957	0.5225	8.2099	47.4345	EI
0.2399	0.2508	0.3887	0.6653	5.3605	52.1594	VE
1.0000	1.0000	1.0000	1.0000	0.9863	-0.0319	SQT

## 71L

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.1798	0.1930	0.2864	0.5638	7.4826	49.2180	GS
0.2867	0.2613	0.4250	0.6572	5.9503	52.1902	AR
0.1093	0.1093	0.0864	0.3339	8.1448	45.6652	AS
0.2509	0.2254	0.4135	0.6401	6.4262	52.3035	MK
0.1851	0.2008	0.2555	0.4682	8.4387	48.4533	MC
0.1259	0.1343	0.1884	0.4642	8.1741	47.2188	EI
0.2164	0.2075	0.3554	0.6549	4.9456	52.9127	VE
1.0000	1.0000	1.0000	1.0000	1.0073	-0.0127	SQT

## 71M

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2720	0.2867	0.3312	0.5919	7.4351	53.3445	GS
0.2792	0.2557	0.3617	0.6243	6.0500	54.3423	AR
0.2261	0.2432	0.2152	0.4164	8.8650	49.9262	AS
0.2600	0.2434	0.3657	0.6152	6.7744	53.7002	MK
0.2427	0.2706	0.2947	0.4939	8.7753	52.7360	MC
0.2496	0.2783	0.2689	0.5150	8.6430	51.3065	EI
0.3371	0.3322	0.4255	0.6950	5.1423	55.3647	VE
1.0000	1.0000	1.0000	1.0000	0.9637	0.0164	SQT

## 72E

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2369	0.2471	0.2776	0.4862	7.3145	49.7118	GS
0.2944	0.3022	0.3336	0.5325	6.7415	50.5803	AR
0.2152	0.1965	0.2744	0.4301	7.4811	50.1579	AS
0.3474	0.3887	0.3634	0.5384	8.0499	48.8368	MK
0.3004	0.2826	0.3624	0.5068	7.3594	50.7987	MC
0.2385	0.2425	0.2880	0.4753	7.8326	48.8895	EI
0.2398	0.2414	0.2870	0.5037	5.2230	52.1224	VE
1.0000	1.0000	1.0000	1.0000	0.9947	-0.0335	SQT

## 72G

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3407	0.3734	0.3478	0.5655	7.6418	50.1125	GS
0.3385	0.3502	0.3652	0.5921	6.7547	51.8762	AR
0.1297	0.1105	0.1746	0.3801	6.9372	47.7075	AS
0.3910	0.4616	0.3996	0.5970	8.4438	51.0988	MK
0.2399	0.2301	0.2892	0.4729	7.4603	51.0525	MC
0.2831	0.2923	0.3123	0.5153	7.9084	48.6262	EI
0.3087	0.2917	0.3391	0.5839	4.8752	53.0975	VE
1.0000	1.0000	1.0000	1.0000	1.0127	0.0165	SQT

## 73C

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1958	0.2258	0.2687	0.5784	7.7987	49.4362	GS
0.3016	0.2933	0.4079	0.6650	6.1591	54.1219	AR
0.1434	0.1500	0.0918	0.3586	8.2667	46.4671	AS
0.2818	0.2663	0.4160	0.6541	6.5584	54.4574	MK
0.1813	0.2150	0.2111	0.4608	8.9509	49.0513	MC
0.1560	0.1750	0.1915	0.4858	8.3377	47.8240	EI
0.2307	0.2493	0.3129	0.6563	5.4071	52.6267	VE
1.0000	1.0000	1.0000	1.0000	0.9989	0.0109	SQT

## 73D

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2463	0.2124	0.4047	0.6491	5.9781	55.4174	GS
0.3190	0.3043	0.4400	0.6890	6.1912	57.5870	AR
0.1068	0.1011	0.1335	0.3788	7.6635	51.2478	AS
0.3595	0.3217	0.5100	0.7140	6.3632	58.9130	MK
0.1027	0.0937	0.2604	0.4804	7.0545	55.6130	MC
0.1692	0.1685	0.2433	0.5150	7.5835	52.1652	EI
0.2937	0.2337	0.4661	0.7377	4.0796	56.3348	VE
1.0000	1.0000	1.0000	1.0000	1.0097	-0.0740	SQT

## 74B

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2138	0.1952	0.3864	0.6334	6.0599	56.5761	GS
0.3094	0.3071	0.4337	0.6793	6.1677	57.7651	AR
0.1305	0.1470	0.1542	0.3943	8.7340	53.6954	AS
0.2863	0.2739	0.4228	0.6576	6.5122	58.4128	MK
0.1870	0.1818	0.3138	0.5160	7.1973	57.2972	MC
0.2480	0.2802	0.3438	0.5698	8.2368	55.1835	EI
0.2826	0.2357	0.4458	0.7125	4.0959	56.1266	VE
1.0000	1.0000	1.0000	1.0000	0.9570	0.0218	SQT

## 75B

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2402	0.2721	0.3512	0.6112	7.6605	49.4842	GS
0.3594	0.3317	0.5097	0.7134	5.8456	52.6980	AR
0.1921	0.2173	0.2065	0.4244	8.9401	47.6394	AS
0.3193	0.2894	0.4937	0.6948	6.2888	52.7086	MK
0.2275	0.2565	0.3271	0.5280	8.5050	49.8094	MC
0.2228	0.2542	0.3042	0.5474	8.4792	48.5422	EI
0.2199	0.2363	0.3777	0.6618	5.3766	52.2545	VE
1.0000	1.0000	1.0000	1.0000	1.0104	-0.0223	SQT

## 75C

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2055	0.2211	0.3234	0.6018	7.4593	49.3873	GS
0.3010	0.2841	0.4358	0.6749	6.1266	52.2938	AR
0.1641	0.1739	0.1782	0.4116	8.5773	46.0936	AS
0.2575	0.2207	0.4147	0.6488	6.0945	52.0979	MK
0.2019	0.2207	0.2884	0.5077	8.4533	48.2322	MC
0.2015	0.2145	0.2799	0.5352	8.1065	47.4922	EI
0.2025	0.2053	0.3532	0.6588	5.1971	52.5078	VE
1.0000	1.0000	1.0000	1.0000	1.0375	-0.0020	SQT



## 75D

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.1387	0.1417	0.2971	0.5655	6.8212	48.1168	GS
0.2651	0.2358	0.4547	0.6683	5.5640	51.6128	AR
0.1163	0.1161	0.1684	0.3924	7.7866	44.5664	AS
0.2616	0.2238	0.4597	0.6593	5.8626	51.1200	MK
0.1678	0.1766	0.3108	0.5095	7.8403	46.9648	MC
0.1752	0.1760	0.2946	0.5278	7.3714	46.0328	EI
0.1171	0.1179	0.3164	0.6108	4.9724	51.8928	VE
1.0000	1.0000	1.0000	1.0000	0.9890	0.0069	SQT

## 75E

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.1569	0.1604	0.3273	0.6167	7.0863	48.0992	GS
0.3082	0.2567	0.5021	0.7237	5.4064	51.9480	AR
0.0968	0.0942	0.1495	0.3965	7.8789	44.7512	AS
0.2144	0.1802	0.4457	0.6832	5.9790	51.5591	MK
0.1101	0.1111	0.2572	0.4940	7.8051	47.0488	MC
0.1719	0.1632	0.2911	0.5512	7.2305	46.4504	EI
0.2152	0.2071	0.3920	0.7034	4.9335	52.1638	VE
1.0000	1.0000	1.0000	1.0000	1.0149	-0.0281	SQT

## 75F

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2256	0.2343	0.3276	0.5353	7.1999	52.3136	GS
0.2985	0.2655	0.4091	0.5924	5.7746	55.7422	AR
0.1860	0.2077	0.2091	0.3711	9.0426	48.7875	AS
0.2133	0.1715	0.3705	0.5697	5.7166	56.8606	MK
0.1508	0.1629	0.2449	0.4235	8.3520	52.2265	MC
0.1572	0.1768	0.2329	0.4446	8.5645	50.3171	EI
0.1977	0.1954	0.3353	0.5618	5.0684	54.2056	VE
1.0000	1.0000	1.0000	1.0000	1.0076	-0.0423	SQT

## 76J

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2168	0.2279	0.3369	0.5871	7.2871	48.1830	GS
0.2269	0.2068	0.4099	0.6428	5.9185	51.1329	AR
0.1630	0.1672	0.1684	0.3819	8.3076	46.1111	AS
0.2667	0.2293	0.4600	0.6625	6.1136	51.2876	MK
0.1844	0.1928	0.2655	0.4699	8.0850	47.4728	MC
0.2015	0.2141	0.2508	0.4960	8.0912	46.4728	EI
0.1939	0.1996	0.3718	0.6490	5.2793	51.0523	VE
1.0000	1.0000	1.0000	1.0000	0.9921	-0.0635	SQT

## 76P

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2204	0.2485	0.2432	0.5149	7.8133	47.7474	GS
0.3603	0.3886	0.4266	0.6378	7.0023	50.4543	AR
0.1962	0.2165	0.1128	0.3418	8.9357	46.3328	AS
0.3579	0.3688	0.4288	0.6273	7.3278	49.9468	MK
0.2928	0.3440	0.2791	0.4755	9.0869	47.3793	MC
0.2628	0.2991	0.2510	0.4856	8.6679	46.5165	EI
0.2020	0.2195	0.2828	0.5778	5.5740	50.7534	VE
1.0000	1.0000	1.0000	1.0000	1.0087	-0.0449	SQT

## 76V

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3043	0.3411	0.3455	0.5780	7.7705	47.6396	GS
0.3503	0.3416	0.4198	0.6368	6.3295	49.9422	AR
0.3125	0.3576	0.2665	0.4554	9.2663	48.3040	AS
0.2927	0.2778	0.3698	0.5918	6.7486	48.9574	MK
0.3606	0.4327	0.3742	0.5462	9.2774	48.1772	MC
0.3364	0.3804	0.3397	0.5509	8.6106	47.1585	EI
0.3038	0.3348	0.3721	0.6157	5.6517	50.3487	VE
1.0000	1.0000	1.0000	1.0000	0.9901	-0.0193	SQT

## 76X

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2749	0.2776	0.3685	0.6153	6.9983	45.9920	GS
0.3383	0.3762	0.4484	0.6786	7.2196	47.9478	AR
0.3223	0.3143	0.3052	0.4998	7.8965	45.4618	AS
0.2985	0.2929	0.3535	0.6052	6.9795	46.1566	MK
0.4314	0.4899	0.4807	0.6309	8.7804	45.9679	MC
0.3217	0.3442	0.3843	0.6004	8.1479	44.9478	EI
0.3592	0.3501	0.4439	0.6868	4.9974	49.9598	VE
1.0000	1.0000	1.0000	1.0000	0.9120	0.0578	SQT

## 77F

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3726	0.4058	0.4236	0.6259	7.5934	48.9266	GS
0.3867	0.3813	0.4338	0.6394	6.4393	50.7959	AR
0.4087	0.4512	0.4179	0.5682	8.9918	50.5302	AS
0.3076	0.2904	0.3883	0.5955	6.7531	49.6201	MK
0.4063	0.4401	0.4400	0.6000	8.4254	50.7499	MC
0.3973	0.4340	0.4312	0.6142	8.3676	48.8124	EI
0.3094	0.3303	0.3751	0.5905	5.5054	51.1728	VE
1.0000	1.0000	1.0000	1.0000	1.0030	0.0139	SQT

## 77W

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1662	0.1558	0.2568	0.4656	6.4589	50.0270	GS
0.3018	0.3531	0.3356	0.5233	7.5499	47.6378	AR
0.2083	0.2031	0.2685	0.4330	7.8464	50.0000	AS
0.2846	0.2925	0.3201	0.4949	7.2654	47.4216	MK
0.3425	0.3772	0.3809	0.5241	8.4656	47.7054	MC
0.2757	0.2579	0.3266	0.4983	7.0804	50.3730	EI
0.1415	0.1570	0.2354	0.4516	5.6581	50.3432	VE
1.0000	1.0000	1.0000	1.0000	1.0385	-0.0071	SQT

## 81L

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1892	0.1955	0.2200	0.5188	7.0096	48.9879	GS
0.3244	0.3938	0.3209	0.5797	7.7125	49.1515	AR
0.2124	0.2519	0.1537	0.3885	9.4000	47.5273	AS
0.2315	0.2472	0.2552	0.5201	7.4325	47.5939	MK
0.2427	0.2859	0.2229	0.4588	8.9172	49.2485	MC
0.3242	0.3314	0.3430	0.5532	7.6224	47.1636	EI
0.1880	0.1883	0.2116	0.5423	5.0265	51.6000	VE
1.0000	1.0000	1.0000	1.0000	1.0290	0.0819	SQT

## 82C

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3261	0.2840	0.5087	0.7233	5.9074	53.1478	GS
0.4941	0.5449	0.5624	0.7623	7.0069	52.3199	AR
0.3255	0.3260	0.3982	0.5819	7.9380	53.0995	AS
0.4442	0.4555	0.5352	0.7273	7.1388	51.9516	MK
0.3488	0.2950	0.4859	0.6560	6.4026	55.5403	MC
0.4140	0.4183	0.5090	0.6953	7.5321	52.2097	EI
0.2874	0.2610	0.4412	0.6916	4.5585	53.1989	VE
1.0000	1.0000	1.0000	1.0000	0.9426	0.0495	SQT

## 88H

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.1387	0.1387	0.2541	0.4822	6.5479	50.1425	GS
0.2282	0.2608	0.2944	0.5174	7.0101	48.3419	AR
0.2054	0.2147	0.2486	0.4057	7.9968	51.3632	AS
0.2522	0.2592	0.3301	0.5302	6.9055	47.6980	MK
0.1681	0.1936	0.2197	0.4064	8.4119	49.1481	MC
0.1352	0.1286	0.2371	0.4451	6.8461	50.4715	EI
0.2074	0.2228	0.2781	0.5238	5.2058	51.3575	VE
1.0000	1.0000	1.0000	1.0000	0.9728	-0.0061	SQT

## 88M

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3500	0.3749	0.3602	0.5303	7.5558	48.6422	GS
0.3398	0.3737	0.3243	0.5124	7.2650	49.4954	AR
0.4059	0.4223	0.4151	0.5364	8.5735	53.0643	AS
0.2581	0.2533	0.2532	0.4513	7.1023	47.8393	MK
0.3974	0.4286	0.4155	0.5488	8.4879	51.6426	MC
0.3733	0.4015	0.3837	0.5394	8.3349	49.6947	EI
0.3184	0.3363	0.3253	0.4913	5.5110	50.7872	VE
1.0000	1.0000	1.0000	1.0000	1.0226	-0.0072	SQT

## 88N

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.0906	0.0987	0.1520	0.4139	7.5465	49.3800	GS
0.1372	0.1252	0.2043	0.4556	5.9267	52.9722	AR
0.0452	0.0542	0.0523	0.2540	9.7157	47.4233	AS
0.1026	0.0886	0.2145	0.4509	6.1418	52.2144	MK
0.0594	0.0679	0.1083	0.3164	8.8339	49.8544	MC
0.0579	0.0652	0.1053	0.3441	8.5753	48.5633	EI
0.1699	0.1975	0.2224	0.5091	5.9623	51.9500	VE
1.0000	1.0000	1.0000	1.0000	1.0208	-0.0421	SQT

## 91A

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2380	0.2099	0.3490	0.5438	6.0011	54.1442	GS
0.2717	0.3061	0.3385	0.5449	7.1822	52.0777	AR
0.2245	0.2382	0.2821	0.4429	8.4369	51.7903	AS
0.2188	0.2306	0.3023	0.5085	7.3582	52.6322	MK
0.2658	0.2548	0.3591	0.5122	7.2793	54.4399	MC
0.2311	0.2381	0.3115	0.4999	7.7065	52.0925	EI
0.2182	0.1966	0.3291	0.5349	4.5370	54.3126	VE
1.0000	1.0000	1.0000	1.0000	1.0074	-0.0059	SQT

91D

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2474	0.1979	0.4048	0.6235	5.4283	54.3576	GS
0.3928	0.4463	0.4760	0.6792	7.2184	52.4273	AR
0.1495	0.1669	0.2246	0.4373	8.8528	50.7064	AS
0.3460	0.3364	0.4575	0.6520	6.7688	52.9535	MK
0.2008	0.1942	0.3495	0.5364	7.3203	53.6483	MC
0.2341	0.2344	0.3460	0.5622	7.4642	51.8140	EI
0.2013	0.1780	0.3644	0.6138	4.4384	54.9419	VE
1.0000	1.0000	1.0000	1.0000	0.9696	-0.0218	SQT

91E

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1058	0.0881	0.2361	0.4274	5.6473	52.5512	GS
0.2501	0.2781	0.3168	0.4863	7.0649	51.1777	AR
0.0420	0.0426	0.1006	0.2565	8.0362	47.8887	AS
0.1609	0.1606	0.2584	0.4502	6.9485	51.5224	MK
0.0900	0.0808	0.2141	0.3617	6.8006	51.6266	MC
0.0671	0.0696	0.1775	0.3596	7.7364	49.0215	EI
0.1626	0.1366	0.2760	0.4798	4.2184	54.0000	VE
1.0000	1.0000	1.0000	1.0000	0.9813	0.0050	SQT

91F

Uncrr	Atten	Army	Youth	STD	MEAN	
-0.0098	-0.0088	-0.0399	0.1868	6.0634	53.8624	GS
0.1248	0.1489	0.1822	0.3409	7.5809	52.4128	AR
0.0588	0.0623	0.0651	0.1843	8.3900	48.6284	AS
0.1218	0.1154	0.1528	0.3241	6.5964	53.6697	MK
0.0362	0.0365	0.0271	0.1841	7.6347	51.7523	MC
0.0236	0.0241	0.0186	0.2004	7.6238	49.5138	EI
0.0591	0.0520	0.0825	0.3228	4.4152	55.4679	VE
1.0000	1.0000	1.0000	1.0000	1.0729	-0.0420	SQT

91G

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2948	0.2102	0.5410	0.7403	4.8380	57.1104	GS
0.3374	0.2670	0.5347	0.7557	5.0276	56.3182	AR
0.2513	0.2372	0.3627	0.5488	7.4811	50.9805	AS
0.1470	0.1240	0.4009	0.6673	5.8728	56.9805	MK
0.2524	0.2113	0.5000	0.6528	6.3375	55.3117	MC
0.2685	0.2814	0.4572	0.6650	7.8125	51.8442	EI
0.3658	0.2639	0.5900	0.7936	3.6219	57.9221	VE
1.0000	1.0000	1.0000	1.0000	1.0222	0.0780	SQT

91K

Uncrr	Atten	Army	Youth	STD	MEAN	
0.0507	0.0461	0.0539	0.2283	6.1745	56.7647	GS
0.2021	0.2057	0.2648	0.3781	6.4664	55.3265	AR
0.0185	0.0204	-0.0203	0.1208	8.7592	49.9279	AS
0.1859	0.1608	0.2526	0.3674	6.0185	58.2309	MK
0.1094	0.1209	0.1149	0.2393	8.3607	54.2485	MC
0.1134	0.1257	0.1043	0.2436	8.2604	53.4294	EI
0.0526	0.0504	0.0721	0.2655	4.8144	55.8559	VE
1.0000	1.0000	1.0000	1.0000	0.9857	-0.0271	SQT

91M

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3716	0.3846	0.4895	0.6953	7.0227	49.1356	GS
0.2432	0.2735	0.3551	0.6315	7.1452	48.1017	AR
0.2191	0.1975	0.3892	0.5564	7.1434	49.5720	AS
0.2078	0.2133	0.2832	0.5696	7.1463	47.5805	MK
0.1969	0.1605	0.4162	0.5938	6.1691	51.2288	MC
0.3642	0.3858	0.4952	0.6676	7.8963	47.1525	EI
0.3548	0.3471	0.4909	0.7114	4.9109	52.5805	VE
1.0000	1.0000	1.0000	1.0000	0.8536	0.0104	SQT

91P

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1624	0.1280	0.3180	0.5450	5.3487	56.1656	GS
0.2124	0.1871	0.3509	0.5814	5.5967	56.3250	AR
0.1503	0.1646	0.2320	0.4185	8.6787	53.0031	AS
0.2807	0.2489	0.4347	0.6166	6.1720	56.6594	MK
0.1852	0.1648	0.3331	0.5022	6.7364	57.0000	MC
0.1586	0.1621	0.2726	0.4909	7.6196	54.2656	EI
0.1594	0.1162	0.3344	0.5811	3.6600	56.4063	VE
1.0000	1.0000	1.0000	1.0000	0.9425	0.0571	SQT

91Q

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3796	0.3209	0.5342	0.6933	5.7356	56.6752	GS
0.3393	0.3214	0.4558	0.6652	6.0208	56.9076	AR
0.2272	0.2420	0.2459	0.4483	8.4438	50.4713	AS
0.2912	0.2644	0.4534	0.6461	6.3195	58.8854	MK
0.3538	0.3681	0.4761	0.6105	7.8759	55.0732	MC
0.2838	0.2934	0.3775	0.5757	7.7061	53.6529	EI
0.2883	0.2508	0.4836	0.6664	4.3661	56.2134	VE
1.0000	1.0000	1.0000	1.0000	0.9392	0.0539	SQT

91R

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2838	0.2277	0.4779	0.6599	5.4433	55.2140	GS
0.3136	0.3165	0.4656	0.6635	6.4140	54.9261	AR
0.1439	0.1597	0.2460	0.4686	8.7963	51.9844	AS
0.2133	0.2112	0.3986	0.5956	6.8916	54.1167	MK
0.2451	0.2315	0.4659	0.6204	7.1496	54.9066	MC
0.2556	0.2649	0.4068	0.6004	7.7262	52.8327	EI
0.0899	0.0717	0.3596	0.5738	4.0015	55.4319	VE
1.0000	1.0000	1.0000	1.0000	1.0254	-0.0699	SQT

91S

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3018	0.2824	0.3726	0.5927	6.3482	56.9534	GS
0.3257	0.3474	0.3677	0.6030	6.7786	55.7161	AR
0.2623	0.3065	0.2184	0.4425	9.2638	50.2585	AS
0.2597	0.2407	0.3407	0.5572	6.4533	57.6653	MK
0.4159	0.4544	0.4634	0.6134	8.2702	55.4958	MC
0.3493	0.3961	0.3832	0.5784	8.4537	53.8729	EI
0.1892	0.1852	0.3349	0.5748	4.9123	56.7076	VE
1.0000	1.0000	1.0000	1.0000	1.0182	-0.0496	SQT

## 91T

Uncrr	Atten	Army	Youth	STD	MEAN	
0.1874	0.1542	0.2651	0.5599	5.5851	55.7278	GS
0.2468	0.2393	0.3501	0.6233	6.1615	54.3608	AR
0.1288	0.1288	0.2044	0.4159	7.9253	51.6646	AS
0.2880	0.3131	0.3777	0.6246	7.5677	54.9367	MK
0.1643	0.1543	0.2534	0.4747	7.1072	54.6392	MC
0.2069	0.2159	0.2744	0.5234	7.7778	53.1835	EI
0.2996	0.2704	0.3716	0.6766	4.5309	56.2975	VE
1.0000	1.0000	1.0000	1.0000	0.8906	-0.0534	SQT

## 91Z

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2011	0.1886	0.3012	0.5149	6.3632	54.4271	GS
0.2360	0.2676	0.2921	0.5221	7.2034	53.4712	AR
0.2066	0.2228	0.2435	0.4114	8.5467	51.5186	AS
0.1238	0.1217	0.2025	0.4517	6.8396	54.4644	MK
0.1894	0.1946	0.2709	0.4480	7.7794	54.1085	MC
0.1877	0.2160	0.2449	0.4584	8.5751	51.2305	EI
0.2511	0.2315	0.3420	0.5628	4.6272	54.5559	VE
1.0000	1.0000	1.0000	1.0000	0.9929	0.0107	SQT

## 92A

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2207	0.2486	0.2982	0.5512	7.6668	51.0790	GS
0.3402	0.3193	0.4627	0.6630	5.9821	54.0391	AR
0.1661	0.1861	0.1913	0.3978	8.9077	50.4355	AS
0.3124	0.2998	0.4410	0.6402	6.7017	53.2601	MK
0.2591	0.2914	0.3312	0.5137	8.5399	52.2171	MC
0.1941	0.2195	0.2570	0.4971	8.4535	50.4776	EI
0.2255	0.2425	0.3388	0.6080	5.4144	52.6257	VE
1.0000	1.0000	1.0000	1.0000	1.0235	0.0047	SQT

## 92G

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3939	0.4442	0.4321	0.6470	7.7215	48.1789	GS
0.4175	0.4922	0.4301	0.6542	7.5615	48.0573	AR
0.3728	0.3716	0.4131	0.5719	7.9756	49.0925	AS
0.3434	0.3528	0.3451	0.5858	7.2197	47.2041	MK
0.4001	0.4341	0.4470	0.6132	8.2891	48.9974	MC
0.3894	0.4201	0.4332	0.6273	8.1165	47.5684	EI
0.3645	0.3942	0.4096	0.6361	5.4782	50.5137	VE
1.0000	1.0000	1.0000	1.0000	1.0012	0.0196	SQT

## 92M

Uncrr	Atten	Army	Youth	STD	MEAN	
0.2246	0.2004	0.3193	0.5193	6.1470	51.7450	GS
0.3066	0.3443	0.3401	0.5208	7.2452	48.4497	AR
0.3539	0.3376	0.4304	0.5456	7.6768	52.3154	AS
0.0258	0.0280	0.1298	0.3790	7.6894	47.0940	MK
0.2489	0.2759	0.3273	0.4977	8.5215	49.5034	MC
0.2479	0.2238	0.2864	0.4826	6.8323	50.3691	EI
0.1385	0.1499	0.2704	0.4679	5.5147	52.2953	VE
1.0000	1.0000	1.0000	1.0000	0.9642	0.0803	SQT

## 92R

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.1086	0.1050	0.1846	0.2737	6.6626	51.8319	GS
0.1715	0.1846	0.2337	0.3131	6.9423	50.8341	AR
0.1497	0.1341	0.2374	0.3009	7.2090	54.5927	AS
0.2331	0.2451	0.2889	0.3496	7.4327	49.5560	MK
0.1942	0.1884	0.2632	0.3267	7.4551	54.2414	MC
0.1545	0.1487	0.2109	0.2931	7.2855	52.5345	EI
0.1115	0.1203	0.1583	0.2423	5.4951	51.8319	VE
1.0000	1.0000	1.0000	1.0000	0.9920	-0.0150	SQT

## 92Y

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.1696	0.1800	0.2304	0.4551	7.5723	49.9023	GS
0.2146	0.1900	0.3014	0.5110	5.9158	52.4846	AR
0.1295	0.1366	0.1419	0.3253	8.7924	49.4759	AS
0.1907	0.1646	0.2875	0.4904	6.3179	52.1993	MK
0.1691	0.1826	0.2199	0.3983	8.5955	50.9327	MC
0.1874	0.1980	0.2284	0.4276	8.2853	49.1059	EI
0.1717	0.1768	0.2522	0.4959	5.4339	51.9848	VE
1.0000	1.0000	1.0000	1.0000	1.0095	0.0057	SQT

## 93C

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2045	0.1724	0.3963	0.6293	5.7207	57.1111	GS
0.2681	0.2407	0.4031	0.6534	5.7054	57.9236	AR
0.1745	0.1504	0.2471	0.4526	6.8321	58.0694	AS
0.2385	0.2238	0.3844	0.6247	6.5328	56.7465	MK
0.2185	0.1912	0.3799	0.5567	6.6224	58.6806	MC
0.2732	0.2522	0.4248	0.6143	6.8809	56.0938	EI
0.2642	0.1988	0.4529	0.6966	3.7764	55.8958	VE
1.0000	1.0000	1.0000	1.0000	1.0252	0.0147	SQT

## 93F

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2669	0.2419	0.3418	0.5698	6.2433	54.1656	GS
0.3146	0.2683	0.4816	0.6673	5.5021	52.7682	AR
0.3258	0.3694	0.3218	0.5025	9.1250	50.8808	AS
0.4205	0.3901	0.5311	0.6798	6.5580	53.3245	MK
0.3580	0.3926	0.4514	0.6033	8.4301	52.2450	MC
0.2500	0.2490	0.3366	0.5509	7.5398	52.7086	EI
0.2565	0.3068	0.3101	0.5559	6.0972	53.1060	VE
1.0000	1.0000	1.0000	1.0000	1.0109	0.0165	SQT

## 93P

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2788	0.2356	0.4864	0.7245	5.7326	53.2848	GS
0.4721	0.5490	0.5671	0.7797	7.3899	51.9247	AR
0.2855	0.3250	0.3649	0.5483	9.0248	50.3813	AS
0.3893	0.3912	0.5135	0.7378	6.9940	51.8232	MK
0.3496	0.3383	0.4956	0.6513	7.3264	53.4681	MC
0.3177	0.3449	0.4456	0.6624	8.0937	50.7660	EI
0.3645	0.3274	0.5682	0.8073	4.5082	54.6858	VE
1.0000	1.0000	1.0000	1.0000	0.9964	-0.0035	SQT

## 95B

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2029	0.1749	0.3446	0.5735	5.8300	54.4594	GS
0.2628	0.2748	0.3666	0.5965	6.6258	52.6952	AR
0.1566	0.1512	0.2617	0.4482	7.6298	54.4663	AS
0.2515	0.2513	0.3565	0.5744	6.9336	52.5606	MK
0.2222	0.1978	0.3546	0.5291	6.7171	56.1038	MC
0.2199	0.2230	0.3312	0.5376	7.5366	53.2631	EI
0.2137	0.1777	0.3419	0.5889	4.1603	54.7173	VE
1.0000	1.0000	1.0000	1.0000	0.9970	-0.0096	SQT

## 95C

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.1685	0.1518	0.1787	0.4446	6.1095	50.4720	GS
0.2945	0.3554	0.3023	0.5197	7.6688	48.9627	AR
0.2146	0.2309	0.2325	0.4035	8.5289	51.6460	AS
0.1257	0.1044	0.1512	0.4152	5.7847	47.2236	MK
0.2168	0.2162	0.3169	0.4894	7.5510	50.6832	MC
0.0943	0.0961	0.1517	0.3987	7.5978	49.3416	EI
0.1715	0.1953	0.2433	0.5089	5.7145	49.6460	VE
1.0000	1.0000	1.0000	1.0000	0.8731	-0.0402	SQT

## 96B

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2189	0.1717	0.4959	0.7305	5.3215	57.5426	GS
0.4137	0.3698	0.5838	0.7925	5.6799	57.1011	AR
0.1882	0.1823	0.3153	0.5206	7.6780	53.4096	AS
0.4150	0.3718	0.5975	0.7831	6.2375	58.0160	MK
0.2422	0.2054	0.4503	0.6232	6.4192	57.5665	MC
0.2571	0.2610	0.3968	0.6380	7.5676	55.0053	EI
0.3086	0.2048	0.5710	0.8158	3.3305	57.6809	VE
1.0000	1.0000	1.0000	1.0000	0.9925	-0.0344	SQT

## 96D

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.4441	0.4090	0.5550	0.7631	6.2496	54.1222	GS
0.4881	0.4848	0.5766	0.7890	6.3117	54.1500	AR
0.4548	0.4857	0.4262	0.6011	8.4655	49.5722	AS
0.4690	0.4687	0.5732	0.7653	6.9567	55.8000	MK
0.3933	0.3984	0.5240	0.6792	7.6684	54.5778	MC
0.4640	0.5753	0.4747	0.6878	9.2439	50.9444	EI
0.4337	0.3460	0.5441	0.7802	4.0043	55.9000	VE
1.0000	1.0000	1.0000	1.0000	0.9859	-0.0347	SQT

## 96R

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.3230	0.3528	0.4103	0.6347	7.4114	53.6648	GS
0.3229	0.3568	0.3795	0.6232	7.0204	53.8489	AR
0.3495	0.3165	0.4677	0.6075	7.1792	55.6429	AS
0.3414	0.3905	0.3737	0.6006	7.9621	51.3159	MK
0.3361	0.3464	0.4553	0.6184	7.8007	54.7335	MC
0.2815	0.2802	0.3891	0.6003	7.4200	53.9615	EI
0.3365	0.3958	0.3938	0.6289	5.9041	52.9670	VE
1.0000	1.0000	1.0000	1.0000	0.9670	0.0095	SQT



## 97B

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2821	0.1855	0.4957	0.7115	4.5310	59.6294	GS
0.1899	0.1681	0.3508	0.6610	5.7137	58.1066	AR
0.1626	0.1529	0.2666	0.4960	7.5671	56.4873	AS
0.2392	0.2236	0.4616	0.6875	6.6053	58.6701	MK
0.2197	0.1708	0.4396	0.6096	5.9742	60.0508	MC
0.2838	0.2714	0.4586	0.6556	7.2403	58.4518	EI
0.2534	0.1381	0.5282	0.7677	2.7768	58.7005	VE
1.0000	1.0000	1.0000	1.0000	1.0513	-0.0519	SQT

## 97E

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2793	0.2189	0.5799	0.7378	5.3182	60.8947	GS
0.2899	0.1867	0.4661	0.7080	4.0924	61.4035	AR
0.1714	0.1560	0.2941	0.4899	7.2141	54.8012	AS
0.2303	0.1574	0.3729	0.6382	4.7581	62.4912	MK
0.3387	0.3057	0.5315	0.6491	6.8326	60.2105	MC
0.2969	0.3150	0.4844	0.6599	7.9089	57.0468	EI
0.3327	0.1622	0.6756	0.8235	2.4467	60.2456	VE
1.0000	1.0000	1.0000	1.0000	1.0533	0.0302	SQT

## 98C

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.2149	0.1513	0.4934	0.7016	4.7792	59.7519	GS
0.3256	0.1939	0.5905	0.7746	3.7848	60.8682	AR
0.1968	0.1947	0.3412	0.5195	7.8426	55.4302	AS
0.2162	0.1575	0.4925	0.7122	5.0708	61.9496	MK
0.2648	0.2163	0.5149	0.6504	6.1854	61.1163	MC
0.2493	0.2403	0.4555	0.6517	7.1857	57.9147	EI
0.2682	0.1531	0.5749	0.7777	2.8646	59.3527	VE
1.0000	1.0000	1.0000	1.0000	0.9912	0.0415	SQT

## 98G

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.1741	0.1221	0.3229	0.5356	4.7586	60.5962	GS
0.2393	0.1766	0.4081	0.6011	4.6901	60.6696	AR
0.1425	0.1380	0.1750	0.3747	7.6777	54.8304	AS
0.2211	0.1634	0.3722	0.5645	5.1442	62.2133	MK
0.1957	0.1776	0.3068	0.4811	6.8684	60.2640	MC
0.2106	0.2120	0.3179	0.5106	7.5042	58.0297	EI
0.1272	0.0768	0.2982	0.5329	3.0283	59.3934	VE
1.0000	1.0000	1.0000	1.0000	1.0445	-0.0261	SQT

## 98H

Uncrrr	Atten	Army	Youth	STD	MEAN	
0.1504	0.1329	0.2259	0.5077	5.9949	56.5753	GS
0.4513	0.4554	0.5426	0.7054	6.4115	57.6449	AR
0.1327	0.1412	0.1639	0.3731	8.4387	54.5573	AS
0.3761	0.3902	0.4480	0.6471	7.2207	56.7753	MK
0.2251	0.2102	0.3186	0.5072	7.0674	57.0022	MC
0.1436	0.1494	0.1683	0.4423	7.7558	55.1101	EI
0.2348	0.1904	0.2878	0.5812	4.0695	56.1326	VE
1.0000	1.0000	1.0000	1.0000	1.0090	-0.0225	SQT

98Z

Uncrr	Atten	Army	Youth	STD	MEAN	
0.3245	0.2670	0.5029	0.7042	5.5825	56.3005	GS
0.4200	0.3847	0.5327	0.7198	5.8204	57.0188	AR
0.2689	0.2656	0.3314	0.5193	7.8311	53.1127	AS
0.3813	0.3814	0.5049	0.6921	6.9623	57.0516	MK
0.3031	0.2834	0.4174	0.5973	7.0782	56.4977	MC
0.2448	0.2426	0.3433	0.5774	7.3870	54.1080	EI
0.2459	0.1797	0.3824	0.6300	3.6678	56.6244	VE
1.0000	1.0000	1.0000	1.0000	1.0009	-0.0401	SQT

## APPENDIX E

## **Impact of Restriction in Range on the Estimation of AA Composites**

### **Introduction**

This appendix will focus on how to obtain the AA composite regression weights (referred to as “u and k” values) for operational use in the applicant Youth Population.<sup>1</sup> The validity coefficients we wish to maximize in the Youth Population actually exist only in doubly restricted MOS samples containing the Skill Qualifications Test (SQT) criterion in the 1987 - 1989 research data set. Appropriate corrections have to be made to these restricted validity coefficients to obtain unrestricted validity coefficients that, if subjected to restriction in range effects, would equal what was obtained in the MOS samples. We also have to estimate what the criterion standard deviation (SD) would have to be in the unrestricted population to yield the criterion SDs observed in the MOS samples.<sup>2</sup>

The Army operational process involves an applicant Youth Population from which self-selection first occurs, and then the Recruiting Command selects some and rejects others using tests, medical examinations, security investigations etc. This results in an Army Input Population from which classification and assignment procedures and further self selection create the 150 MOS samples, each with its separate SQT criterion measure. Thus there is a selection stage and a classification and assignment stage, with a restriction in range effect on both test scores and hypothetical criterion scores occurring at both stages. If we confined selection effects to the impact of the AFQT screen, the two kinds of effects would have to be corrected in a sequential manner. However, since we are not restricting ourselves to such a limited selection effect, and are instead considering all effects on the subtest co-variances at each restriction stage, we can correct validity coefficients and criterion SDs directly to the Youth Population.

Our correction process for restriction in range involves contrasting, separately for each MOS, the within-MOS subtest variance/co-variances against the Youth Population operational test variance/co-variances. The differences in the variance/co-variances across the unrestricted and the restricted samples for variables specified as explicitly selected variables are the measures of the magnitude of the restriction effect. For our purposes we use all ASVAB subtests as the explicitly restricted variables and we designate the criterion variables as the implicitly restricted variables that are restricted to the extent that they are predicted by the explicitly restricted variables.

Using this concept we can calculate the effect selection has on subtest scores and can then calculate the further effect classification and assignment has on test scores in the Army Input Population – to arrive at the doubly restricted subtest scores in the MOS samples. Considering the correlation of the subtest scores with the criterion scores and the amount of restriction occurring at each stage, we can determine the restriction effect on the hypothetical criterion scores and then provide a correction extending from the MOS criterion scores to the

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<sup>1</sup> This appendix has been prepared by Cecil Johnson, consulting research psychologist.

<sup>2</sup> It should be noted that whenever validity coefficients are mentioned, we are assuming that these coefficients have been corrected for attenuation with respect to criterion unreliability. Even if we should refer to an uncorrected validity coefficient (for restriction in range), this “uncorrected” coefficient has been corrected for attenuation.

less restricted populations where the criterion scores exist only as a function of the subtest scores (i.e., as predicted criterion scores).

### Approach

There is more than one algebraically equivalent way of providing operational  $u$  and  $k$  values when criterion scores are only available on the doubly restricted MOS samples. We will use an approach that utilizes the equality of  $G$ -weights computed in the restricted and the unrestricted population (using Gulliksen's formulation as described below). The  $G$ -weights computed in the restricted population samples will be used as a substitute for the unobtainable  $G$ -weights in the unrestricted population in Gulliksen's formula for computing the criterion variance in the unrestricted population.

1. Consider the matrix of  $G$ -weights,  $G$ , in each MOS sample. Our use for  $G$  is as an entry value in Gulliksen's formula (see below). The corrected validity coefficients, obtained with the use of the formula at either or both the Army Input Population and Youth Population points, were then employed in computing Beta weights in the Youth Population. Note that this correction must be made from each MOS sample to the Youth population to produce validity coefficients corrected for restriction in range. These corrected MOS validity coefficients are then aggregated into a corrected validity for each specified family, using acquisition values to weight the MOS validity coefficients corrected to the Youth Population.
2. Visualize a composite computed for an individual by summing the product of each subtest standard score and  $B$ . The best weighted composite  $XB$  will have a SD equal to the validity of predicted performance (PP) in the Youth Population if the elements of the  $V$  matrix used in computing  $B$  are validity coefficients corrected for restriction in range to represent the Youth Population, and the  $R$  matrix consists of the inter-correlation coefficients among subtests as expected in the Youth Population. The criterion variables, predicted as least square estimates (LSEs) by the PP composites, have a SD equal to 1.0 in the restricted MOS samples, while the hypothetical unrestricted criterion variables would have larger SDs in the less restricted populations. Compute the Youth Population beta weights as follows:

$$B = R^{-1} V^T,$$

where  $R$  is the Youth Population matrix of subtest inter-correlation coefficients and  $V$  is the matrix of validity coefficients corrected to the Youth Population. Looking at the formula in more detail,

$$R = S_x C_{xx} S_x, \text{ and } V^T = S_x C_{xc} S_c,$$

where  $C$  represents criterion / subtest variance and co-variances found in Gulliksen's formulae, and  $S$  represents a diagonal matrix where each diagonal element is equal to a reciprocal of a SD.

3. Compute  $b$ -weights by converting the Beta weights computed in step 2. The  $b$ -weights that are appropriate to apply to operational test scores to obtain a least squares estimate (LSE) of the criterion can be defined in terms of the Beta weights, the SDs of the subtests, and the SDs of the criterion scores. These  $b$ -weights applied to the operational test scores would provide a composite that, if the appropriate regression constant were subtracted, would have a mean of 50 and a SD less than 10 (because of the effects of the positive inter-correlation

coefficients among the subtests). The b-weights are computed, ignoring the regression constants, as follows:

$$b\text{-weight} = B\text{-weight} * (SD)_c / (SD)_t,$$

where t represents a subtest,  $SD_t = 10$ , and c represents the criterion variable.

4. The composite computed in step 3 will have a SD less than 10. We wish to convert this composite to have a SD of 20. To do this we will multiply each b-weight by a composite multiplier (CM) that will convert the composite to have a SD of 20 without affecting the composite mean. CM can be computed as follows.

$$CM = 20 / (10 * (\underline{b}R\underline{b}^T)^{1/2}),$$

where  $\underline{b}$  is a vector of b-weights and R is the Youth Population matrix of subtest inter-correlation coefficients.

5. We can now compute the u and k values for each composite:

$$u_j = CM * b\text{-weight of the } j\text{-th subtest}$$

$$k = 100 - \sum u_j * 50$$

### Key Formulae From Gulliksen

The algorithms we use to correct for restriction in range due to “selection” effects are developed and described by Gulliksen (1950)<sup>3</sup>. His development is based on a model that visualizes the presence of both explicit and implicit selection processes in the unrestricted population, and the presence of both explicitly and implicitly selected variables in the restricted population. Thus, both explicit and implicit variables are present in both the unrestricted and restricted populations. The author shows, in the context of this model, relationships among the restricted and unrestricted variances/co-variances without relaxing flexibility as to which population contains the unknowns that cannot be directly computed but can be determined on the basis of the relationships defined in his model.

The Gulliksen formulae for correcting variances and/or co-variances for restriction in range effects are based on Lawley’s (1943) assumptions that include the following: (1) that the regression of the implicitly restricted variables on the explicitly restricted predictors is linear; (2) that the co-variance of the restricted variables exhibit homoscedasticity; and (3) that the G-weights for application to the population variance-covariance matrix of operational test scores (explicitly restricted variables, e.g., sub-tests) are invariant to the effects of restriction (as defined). Thus it is assumed that

$$G = (C_{xx})^{-1} (C_{xc})^T$$

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<sup>3</sup> See H. Gulliksen, *Theory of Mental Tests*. New York: John Wiley & Sons, 1950.

can be computed in a restricted population sample and substituted in formulae for use in the unrestricted population where a G-weight is to be entered. Gulliksen's formula 42, used to compute criterion variance in the Youth Population, requires such an entry. This criterion variance is essential for converting Beta-weights into b-weights and obviously cannot be directly computed in the Youth Population.

As previously stated, our objective is to have an algorithm replete with valid formulae that will convert operational test scores into LSEs of the criterion (i.e. PP composites) in a scale appropriate for use in the indicated population.

#### Application of Formulae 37 and 42

Applying combined formulae 37 and 42 to one criterion variable at a time, and making small changes in Gulliksen's notation, we can compute the squared SD of each Youth Population criterion variable associated with each job family. This result can be described as the Youth Population criterion variance, or YPCV:

$$YPCV = 1.0 + \underline{C}_{xc} (C_{xx})^{-1} ( (*C_{xx}) (C_{xx})^{-1} - I ) (\underline{C}_{xc})^T,$$

where  $(\underline{C}_{xc})$  is a 9 by 1 vector of co-variances between the criterion variable and each of the 9 tests,  $C_{xx}$  is a 9 by 9 matrix of co-variances among 9 tests using the operational test scores, and vectors are denoted by underlining. Note that the asterisk matrix, e.g.  $*C$ , indicates computation in the unrestricted (i.e. Youth Population) sample.<sup>4</sup>

The R matrix has the following relationship with the  $C_{xx}$  matrix:

$$R = S_x C_{xx} S_x,$$

where S is a diagonal matrix for which the diagonal elements are equal to the reciprocals of the SDs of either the subtests or the criterion variable in either the MOS sample or the Youth Population, as indicated.

The  $*C_{xc}^T$  matrix is derived from the Gulliksen formula as:

$$(*C_{xc})^T = (*C_{xx}) (G) = (*C_{xx}) (C_{xx})^{-1} (\underline{C}_{xc})^T.$$

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<sup>4</sup> Note that YPCV can also be written as follows:

$$YPCV = 1.0 + (W^T) (*C_{xx} W - (\underline{C}_{xc})^T),$$

where  $W = (C_{xx})^{-1} (\underline{C}_{xc})^T$ , a 9 by 1 vector of regression weights for a specified job family. W will also be recognized as one column of the G matrix.

Note that one column of  $*C_{xc}^T$  is  $(\underline{C}_{xc})^T$ , a vector used in the computation of YPCV. The validity matrix  $(*V^T)$  required to compute Beta weights in the Youth Population has the following relationship with the  $*C_{xc}^T$  vector:

$$\text{one column of } *V^T \text{ is } (*S_x)(\underline{C}_{xc})^T(*S_c),$$

and note that  $*S_c$  is a scalar.

### Positively Weighted Composites for the Visible Tier

This section extends the initially professed objectives of this appendix beyond restriction in range corrections and the conversion of Betas to u and k values. We will now discuss the methodology for selecting the "best" positively weighted composites where best is defined in terms of maximizing the multiple correlation coefficient of a set of tests with the criterion.

The surest way to find this best positively weighted composite from a set of n tests is to compute the Betas and validity coefficients for every possible combination of n tests, then successive levels: for n-1 tests, then n-2 tests, ...to 2 tests --- rejecting any combination of tests that has one or more negative weights. There is no need to actually consider all of these combinations since there comes a point in this process where all multiple correlation coefficients (Rs) for succeeding levels are lower than the highest R in a prior level.

The multiple-correlation coefficient, R, corresponding to each set of Betas is computed for each combination whether or not all of the weights are positive. Clearly, if the R for each combination of m-1 tests, negative weights permitted, was less than the highest R for m positively weighted subtests computed from the combinations considered at the prior level, the stopping point has been reached. After the stopping criterion has been reached, the set of subtests with all positively weighted coefficients that provides the maximum R is selected as the very best set and these weights become the B-weights for the associated subtests. All other tests are given a weight of zero in the composite associated with the specified job family.